

10/ 075,073

ACCESSION NUMBER: 1998:758027 CAPLUS
 DOCUMENT NUMBER: 130:95524
 TITLE: Thieno[2,3-d]pyrimidine-3-acetic acids. A new class of nonpeptide endothelin receptor antagonists
 AUTHOR(S): Cho, Nobuo; Nara, Yoshi; Harada, Mioko; Sugo, Tsukasa; Masuda, Yasushi; Abe, Akemi; Kusumoto, Keiji; Itoh, Yasuaki; Ohtaki, Tetsuya; Watanabe, Toshifumi; Furuya, Shuichi
 CORPORATE SOURCE: Discovery Research Division, Takeda Chemical Industries, Ltd., Tsukuba, 300-4293, Japan
 SOURCE: Chemical & Pharmaceutical Bulletin (1998), 46(11), 1724-1737
 PUBLISHER: Pharmaceutical Society of Japan
 DOCUMENT TYPE: Journal
 LANGUAGE: English

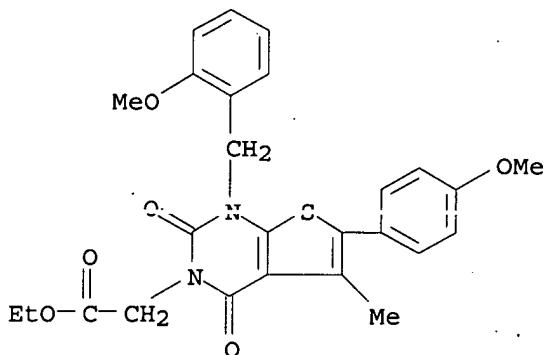
AB On the basis of structural information for the cyclic hexapeptide endothelin (ET) receptor antagonist, TAK-044, a series of thieno[2,3-d]pyrimidine-2,4-dione derivs. bearing a carboxyl group and arom. rings that were important for receptor binding were designed, synthesized, and evaluated for ET receptor binding affinities and inhibitory activities against ET-induced vasoconstriction. Optimization of each substituent in the thieno[2,3-d]pyrimidine ring led to the discovery of a novel and potent nonpeptide ET receptor antagonist, 6-(4-methoxymethoxyphenyl)-5-methylsulfonylaminomethyl-1-(2-methylthiobenzyl)-2,4-dioxo-1,2,3,4-tetrahydrothieno[2,3-d]pyrimidine-3-acetic acid (I), which bound to human ETA and ETB receptor subtypes with affinities (IC50) of 7.6 and 100 nM, resp. I effectively antagonized ET-induced vasoconstriction and the inhibitory effect mediated by the ETB receptor was more potent than that of bosentan, while the inhibitory effect mediated by the ETA receptor was slightly less potent than that of bosentan.

IT 165807-66-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and endothelin receptor antagonist activity of thienopyrimidineacetic acids)

RN 165807-66-9 CAPLUS

CN Thieno[2,3-d]pyrimidine-3(2H)-acetic acid, 1,4-dihydro-6-(4-methoxyphenyl)-1-[(2-methoxyphenyl)methyl]-5-methyl-2,4-dioxo-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT:

33

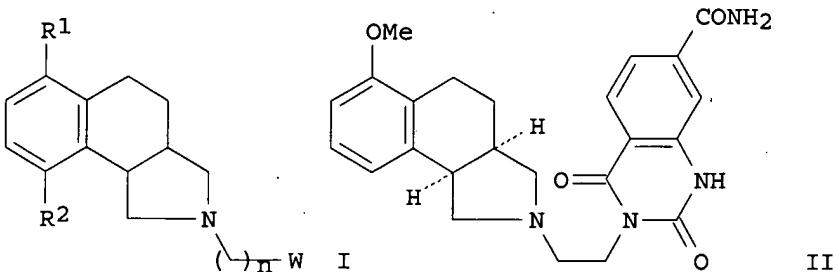
THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 42 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1998:542760 CAPLUS
 DOCUMENT NUMBER: 129:161567
 TITLE: Preparation of bicyclic-substituted hexahydrobenz[e]isoindoles as .alpha.1 adrenergic antagonists
 INVENTOR(S): Meyer, Michael D.; Altenbach, Robert J.; Basha, Fatima Z.; Carroll, William A.; Drizin, Irene; Kerwin, James F., Jr.; Lebold, Suzanne A.; Lee, Edmund L.; Pratt, John K.; Sippy, Kevin B.; Tietje, Karin R.; Yamamoto, Diane M.
 PATENT ASSIGNEE(S): Abbott Laboratories, USA
 SOURCE: U.S., 42 pp., Cont.-in-part of U. S. 5,521,181.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5792767	A	19980811	US 1995-465476	19950605
US 5521181	A	19960528	US 1995-379823	19950127
CA 2210966	AA	19960801	CA 1996-2210966	19960111
WO 9622991	A1	19960801	WO 1996-US178	19960111
W: AU, CA, JP, KR, MX				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9647473	A1	19960814	AU 1996-47473	19960111
AU 694611	B2	19980723		
EP 805812	A1	19971112	EP 1996-903364	19960111
EP 805812	B1	20010613		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
JP 11501616	T2	19990209	JP 1996-522872	19960111
ES 2159721	T3	20011016	ES 1996-903364	19960111
PRIORITY APPLN. INFO.:				
US 1995-379823 A2 19950127				
US 1995-465476 A 19950605				
WO 1996-US178 W 19960111				

OTHER SOURCE(S): MARPAT 129:161567

GI



AB The invention relates to compds. I [R1, R2 = H, alkyl, alkoxy, OH, halo, CO2H, and alkoxycarbonyl; n = 2-6; W = certain 5,6-carbo- or 5,6-heterocycle-fused 2,4(1H,3H)-pyrimidinedione or 4(3H)-pyrimidinone groups, bound at the pyrimidine 3-position] and their pharmaceutically acceptable salts. The compds. are .alpha.1-adrenergic antagonists, and are useful in the treatment of benign prostatic hyperplasia (BPH). Also disclosed are .alpha.1-antagonist compns., and a method for antagonizing

.alpha.1 receptors and treating BPH, optionally including use of a 5.alpha.-reductase inhibitor such as finasteride. For instance, Me 2-amino-4-carbamylbenzoate was treated with triphosgene to give an isocyanate, which was cyclized with (3aR,9bR)-2-(2-aminoethyl)-6-methoxy-2,3,3a,4,5,9b-hexahydro-1H-benz[e]isoindole to give title compd. II, isolated as the HCl salt. The latter bound strongly (0.058 nM) to bovine .alpha.1a adrenoceptors in vitro.

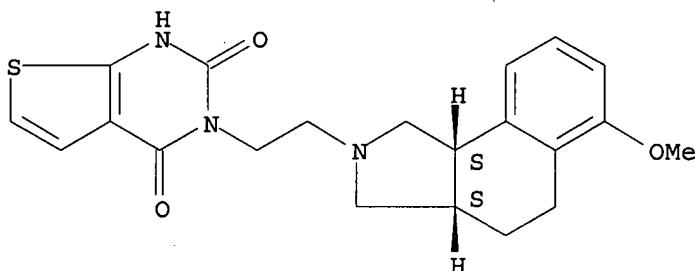
IT 179114-35-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); **Biol (Biological study)**; PREP (Preparation); USES (Uses) (prepn. of bicyclic substituted hexahydrobenz[e]isoindoles as .alpha.1-adrenergic antagonists)

RN 179114-35-3 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 3-[2-[(3aR,9bR)-1,3,3a,4,5,9b-hexahydro-6-methoxy-2H-benz[e]isoindol-2-yl]ethyl]-, monohydrochloride, rel- (9CI) (CA INDEX NAME)

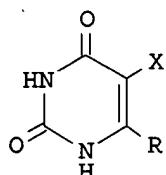
Relative stereochemistry.



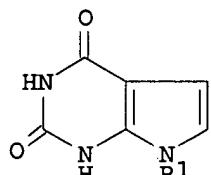
● HCl

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 43 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1998:294265 CAPLUS
 DOCUMENT NUMBER: 129:27847
 TITLE: Synthesis of 6-aminouracils and pyrrolo[2,3-d]pyrimidine-2,4-diones and their inhibitory effect on thymidine phosphorylase
 AUTHOR(S): Hirota, Kosaku; Sawada, Masayuki; Sajiki, Hironao; Sako, Magoichi
 CORPORATE SOURCE: Laboratory of Medicinal Chemistry, Gifu Pharmaceutical University, Gifu, 502, Japan
 SOURCE: Nucleic Acids Symposium Series (1997), 37 (Symposium on Nucleic Acids Chemistry, 1997), 59-60
 CODEN: NACSD8; ISSN: 0261-3166
 PUBLISHER: Oxford University Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



I



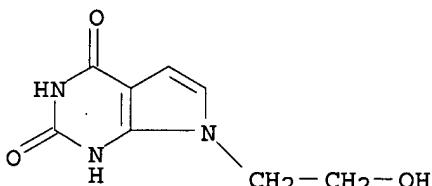
II

AB A symposium report on inhibitors of thymidine phosphorylase which are expected to suppress the growth and metastasis of tumor cells by inhibition of angiogenesis and were designed by utilizing the three dimensional structure of the enzyme. 5-Substituted 6-aminouracils (I; R = NH₂, X = Et, SPh, NO₂, Br; R = NHCH₂CH₂NHMe, X = Br; R = CH₂CH₂CH₂NHMe, X = CN) and 7-substituted pyrrolo[2,3-d]pyrimidine-2,4-diones [II; R₁ = CH₂CH₂OH, CH₂C(:NH)NH₂, CH₂CH₂NH₂, CH₂CONH₂] were synthesized and tested for inhibition phosphorylase. 5-Bromo-6-aminouracil (I; R = NH₂, X = Br), 5-cyano-6-[3-(methylamino)propyl]uracil (I; R = CH₂CH₂CH₂NHMe, X = CN), and 7-(2-aminoethyl)pyrrolo[2,3-d]pyrimidine-2,4-dione (II; R₁ = CH₂CH₂NH₂) inhibited thymidine phosphorylase with IC₅₀s of 7.6, 3.8 and 44.0 .mu.M, resp.

IT 207978-43-6, 7-(2-Hydroxyethyl)pyrrolo[2,3-d]pyrimidine-2,4-dione
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (prepn. and thymidine phosphorylase inhibition by aminouracils and pyrrolo[2,3-d]pyrimidinediones)

RN 207978-43-6 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 7-(2-hydroxyethyl)- (9CI)
 (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

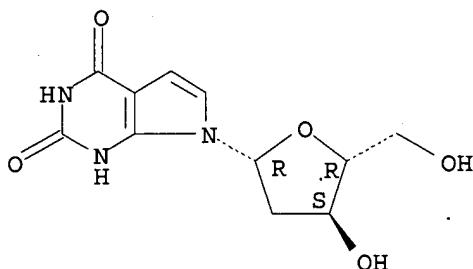
L8 ANSWER 44 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1998:192795 CAPLUS
 DOCUMENT NUMBER: 128:244268
 TITLE: Synthesis of 2',3'-didehydro-2',3'-dideoxyisoinosine and oxidation of fluorescent 2-hydroxypurine nucleosides by xanthine oxidase
 AUTHOR(S): Seela, Frank; Chen, Yaoming; Sauer, Markus
 CORPORATE SOURCE: Lab. Org. Bioorg. Chem., Inst. Chem., Univ. Osnabruck, Osnabruck, D-49069, Germany
 SOURCE: Nucleosides & Nucleotides (1998), 17(1-3), 39-52
 PUBLISHER: Marcel Dekker, Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The syntheses of 2',3'-didehydro-2',3'-dideoxyisoinosine (d4isoI) as well as 7-deaza-2',3'-didehydro-2',3'-dideoxyisoinosine (d4c7isoI) are described. Both compds. show strong fluorescence. Compd. d4isoI is

oxidized by xanthine oxidase to give the corresponding xanthine 2',3'-dideoxy-2',3'-didehydronucleosides. A preparative chemo-enzymic synthesis of 2'-deoxyxanthosine is described.

IT 96022-82-1P
 RL: BPN (Biosynthetic preparation); BIOL (Biological study);
 PREP (Preparation)
 (prepn. of didehydrodideoxyisoinosine and oxidn. of fluorescent hydroxypyrimidine nucleosides by xanthine oxidase)

RN 96022-82-1 CAPLUS
 CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 7-(2-deoxy-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



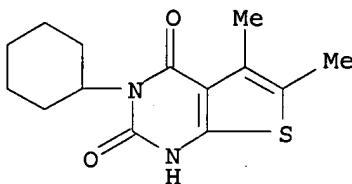
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 45 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1998:131379 CAPLUS
 DOCUMENT NUMBER: 128:204861
 TITLE: Synthesis of new thieno[2,3-d]pyrimidine-2,4(1H,3H)-diones with analgesic and anti-inflammatory activities
 AUTHOR(S): Romeo, Giuseppe; Russo, Filippo; Caruso, Antonina; Cutuli, Vincenza; Amico-Roxas, Matilde
 CORPORATE SOURCE: Dipartimento Scienze Farmaceutiche, Facolta Medicina, Universita Catania, Catania, I-95125, Italy
 SOURCE: Arzneimittel-Forschung (1998), 48(2), 167-172
 CODEN: ARZNAD; ISSN: 0004-4172
 PUBLISHER: Editio Cantor Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 128:204861

AB A series of 1,3-disubstituted thieno[2,3-d]pyrimidine-2,4(1H,3H)-diones was prep'd. The analgesic and anti-inflammatory activities of synthesized compds. were investigated by the phenylquinone-induced writhing syndrome test, carrageenan rat paw edema test and AcOH-induced peritonitis assay. Most of the compds. are superior to mefenamic acid, as they were devoid of any ulcerogenic activity.

IT 203808-33-7P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of thienopyrimidinediones with analgesic and anti-inflammatory activity)

RN 203808-33-7 CAPLUS
 CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 3-cyclohexyl-5,6-dimethyl- (9CI) (CA INDEX NAME)



L8 ANSWER 46 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:122853 CAPLUS

DOCUMENT NUMBER: 128:238986

TITLE: Synthesis of 6-thiosubstituted 5-ethoxycarbonyl-1,3-diphenyl-2-thioxo-2,3-dihydropyrimidin-4(1H)-ones, 6-substituted 5-hydroxy-1,3-diphenyl-2,3-dihydrothieno[2,3-d]pyrimidin-4(1H)-ones and their esters with local anesthetic, antiarrhythmic, antiinflammatory and analgesic activities

AUTHOR(S): Ranise, Angelo; Bruno, Olga; Schenone, Silvia; Bondavalli, Francesco; Falcone, Giuseppe; Filippelli, Walter; Sorrentino, Salvatore

CORPORATE SOURCE: Dipartimento di Scienze Farmaceutiche dell'Universita, Genoa, I-16132, Italy

SOURCE: Farmaco (1997), 52(8-9), 547-555

CODEN: FRMCE8; ISSN: 0014-827X

PUBLISHER: Societa Chimica Italiana

DOCUMENT TYPE: Journal

LANGUAGE: English

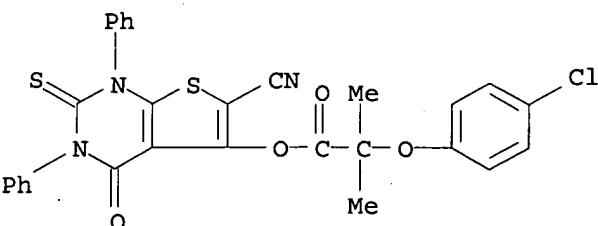
AB The synthesis of 6-thiosubstituted 5-ethoxycarbonyl-1,3-diphenyl-2-thioxo-2,3-dihydropyrimidin-4(1H)-ones, and of 6-substituted 5-hydroxy-1,3-diphenyl-2,3-dihydrothieno[2,3-d]pyrimidin-4(1H)-ones and their esters is described. These derivs. were prep'd. to evaluate the influence on the pharmacol. profile of alkyl substituents bearing polar/hydrophilic functionalities at an enethiol substructure or to assess the effects arising from the incorporation of the sulfur atom in a thiophene moiety as in thienopyrimidinones in comparison with a series of 5-substituted 6-acylthio-1,3-diphenyl-2-thioxo-2,3-dihydropyrimidin-4(1H)-ones, previously described. Preliminary screenings suggest that all tested compds. maintained or even increased the local anesthetic activity, but failed in the platelet anti-aggregating activity; antiarrhythmic and antiinflammatory activity was preserved in some esters.

IT 205128-15-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); BIOL (Biological study)
(prep. and pharmacol. activity of)

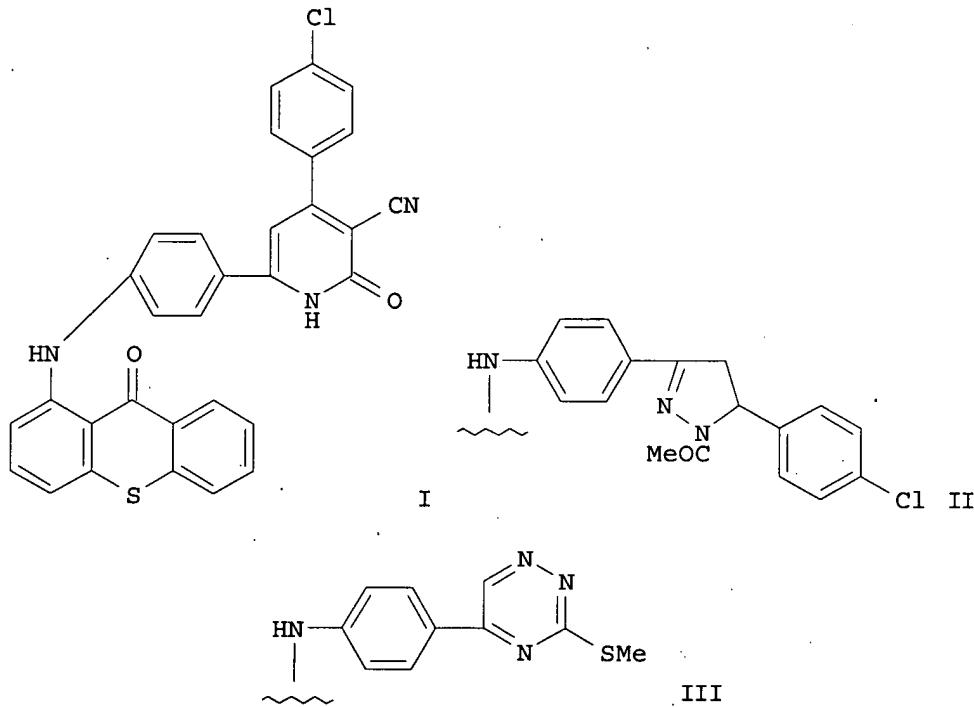
RN 205128-15-0 CAPLUS

CN Propanoic acid, 2-(4-chlorophenoxy)-2-methyl-, 6-cyano-1,2,3,4-tetrahydro-4-oxo-1,3-diphenyl-2-thioxothieno[2,3-d]pyrimidin-5-yl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 47 OF 90 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:61889 CAPLUS
DOCUMENT NUMBER: 128:192627
TITLE: Synthesis of 1-(heterocyclic substituted anilino)-9H-thioxanthan-9-ones and their antitumor activity
AUTHOR(S): Omar, Mahmoud T.
CORPORATE SOURCE: Chemotherapeutic Department, National Research Centre, Cairo, 12311, Egypt
SOURCE: Archives of Pharmacal Research (1997), 20(6), 610-619
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB Some new 9H-thioxanthen-9-one incorporated into heterocyclic systems such as pyridone I, pyrazoline II, and triazine III and other related compds. through a para iminophenyl grouping at position-1 of the thioxanthenone ring were synthesized and tested as antitumor agents against L 1210 leukemia in mice. Some of the new compds. showed considerable antitumor activity.

IT 202994-27-2P

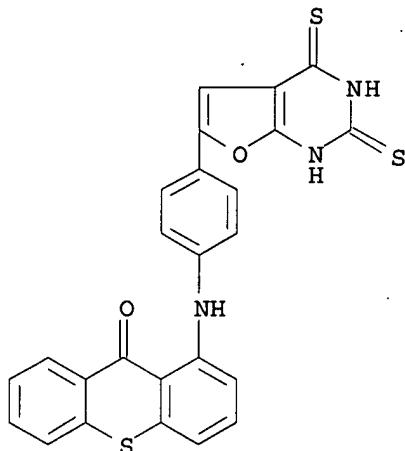
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and antitumor activity of (heterocyclic anilino)thioxanthenones)

RN 202994-27-2 CAPLUS

CN 9H-Thioxanthen-9-one, 1-[(4-(1,2,3,4-tetrahydro-2,4-dithioxofuro[2,3-

d]pyrimidin-6-yl)phenylamino]- (9CI) (CA INDEX-NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 48 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1997:740125 CAPLUS
 DOCUMENT NUMBER: 128:16433
 TITLE: Preparation of thienopyridinones as GNRH agonists and antagonists
 INVENTOR(S): Suzuki, Nobuhiro; Furuya, Shuichi
 PATENT ASSIGNEE(S): Furuya, Shuichi, Japan; Takeda Chemical Industries, Ltd.; Suzuki, Nobuhiro
 SOURCE: PCT Int. Appl., 285 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9740846	A1	19971106	WO 1997-JP1459	19970425
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2250908	AA	19971106	CA 1997-2250908	19970425
AU 9724079	A1	19971119	AU 1997-24079	19970425
JP 10045625	A2	19980217	JP 1997-108713	19970425
EP 906115	A1	19990407	EP 1997-919703	19970425
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6015789	A	20000118	US 1997-894317	19970814
PRIORITY APPLN. INFO.:			JP 1996-109790	19960430
			JP 1996-138873	19960531
			WO 1997-JP1459	19970425

OTHER SOURCE(S): MARPAT 128:16433

AB The present invention relates to a pharmaceutical comprising a LH releasing hormone agonist in combination with a LH releasing hormone antagonist. By using a LH releasing hormone agonist and a LH releasing

hormone antagonist in combination--the transient exacerbation with elevation of serum testosterone and estrogen owing to the pituitary-gonadotropic action (acute action) manifested immediately following an initial dose of the LH releasing hormone agonist can be successfully obviated. The synthesis of the title compds. and their activity are described.

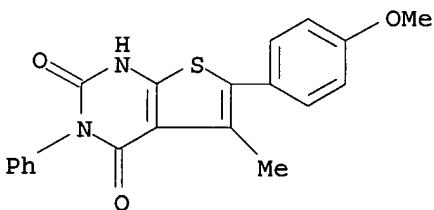
IT 174072-91-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of bicyclic LHRH antagonists and use in combination with LHRH active peptides)

RN 174072-91-4 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 6-(4-methoxyphenyl)-5-methyl-3-phenyl- (9CI) (CA INDEX NAME)



L8 ANSWER 49 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:623171 CAPLUS

DOCUMENT NUMBER: 127:293243

TITLE: Pyrimidin-4-one derivatives as pesticides

INVENTOR(S): Walter, Harald

PATENT ASSIGNEE(S): Novartis A.-G., Switz.; Walter, Harald

SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

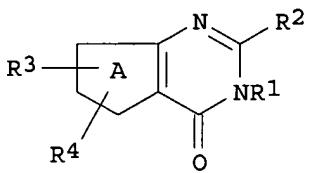
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9733890	A1	19970918	WO 1997-EP1056	19970303
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9719250	A1	19971001	AU 1997-19250	19970303
AU 716248	B2	20000224		
EP 888359	A1	19990107	EP 1997-907065	19970303
EP 888359	B1	20020502		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, RO				
CN 1213373	A	19990407	CN 1997-192939	19970303
BR 9708314	A	19990803	BR 1997-8314	19970303
NZ 331175	A	20000228	NZ 1997-331175	19970303
JP 2000506171	T2	20000523	JP 1997-532076	19970303
AT 216999	E	20020515	AT 1997-907065	19970303
ES 2176697	T3	20021201	ES 1997-907065	19970303
ZA 9702041	A	19970929	ZA 1997-2041	19970310

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TW 449462 B 20010811 TW 1997-86102901 19970310
US 6262058 B1 20010717 US 1998-125760 19980825
PRIORITY APPLN. INFO.: CH 1996-635 A 19960311
WO 1997-EP1056 W 19970303

OTHER SOURCE(S): MARPAT 127:293243
GI



AB Pyrimidin-4-ones I [R1 = alkyl, alkenyl, alkynyl, cycloalkyl, each of which is unsubstituted or substituted by halo, alkoxy, haloalkoxy, etc.; R2 = OR5, SR6, NR7R8; R3, R4 = H, halo, alkyl, haloalkyl, etc.; R5, R6 = alkyl, alkenyl, alkynyl, cycloalkyl; R7, R8 = alkyl, alkenyl, alkynyl, cycloalkyl; A is a 5-membered heterocyclic ring which may be satd., unsatd., arom., nonarom. and which may contain 1 or 2 O, S, and/or N] were prep'd. I have plant-protective properties and are suitable for protecting plants against infestation by phytopathogenic micro-organisms, in particular fungi. Thus, addn. of NaH to Me 2-(3-butylthioureido)thiophene-3-carboxylate gave 3-butyl-2-thioxo-2,3-dihydro-1H-thieno[2,3-d]pyrimidin-4-one. The fungicidal activities of I against Puccinia graminis on wheat, Colletotrichum lagenarium on cucumbers, Venturia inaequalis on apples, Erysiphe graminis on barley, Plasmopara viticola on vines, and Uncinula necator on vines were measured.

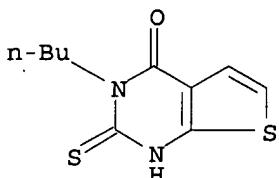
IT 197017-02-0P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of pyrimidinones as agrochem. fungicides)

RN 197017-02-0 CAPLUS

CN Thieno[2,3-d]pyrimidin-4(1H)-one, 3-butyl-2,3-dihydro-2-thioxo- (9CI) (CA INDEX NAME)



L8 ANSWER 50 OF 90 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:542142 CAPLUS
DOCUMENT NUMBER: 127:253169
TITLE: LH-RH antagonist compositions
INVENTOR(S): Ishiguro, Toshihiro; Furuya, Shuichi; Suzuki, Nobuhiro
PATENT ASSIGNEE(S): Takeda Seiyaku K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

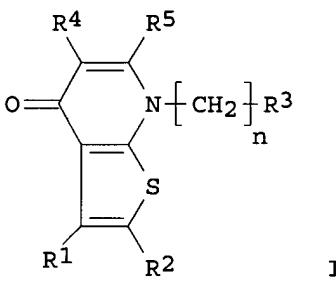
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09208496	A2	19970812	JP 1996-14322	19960130
WO 2000056739	A1	20000928	WO 2000-JP1777	20000323
W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:		JP 1996-14322	A	19960130
		JP 1999-79371	A	19990324
		JP 2000-18019	A	20000125

OTHER SOURCE(S): MARPAT 127:253169

GI



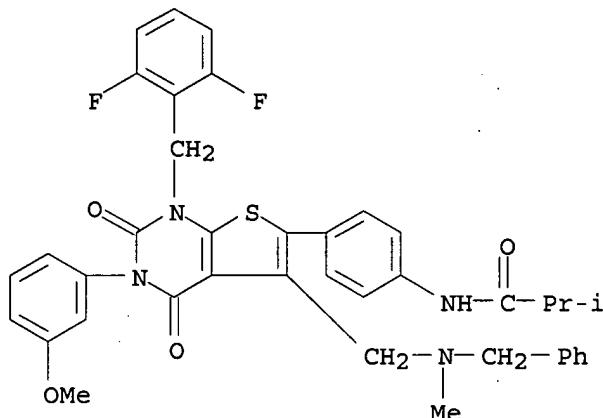
AB LH-RH antagonist compns. contain: (A) thienopyridine compds. e.g. (I) [R1-2 = H or linkage via N, C or S, R3 = (un)substituted polycyclic or other group, R4 = H, formyl, (un)substituted carbonyl group, etc., R5 = H, or linkage via C, n = 0-3] (preps. given) as LH-RH receptor antagonists and (B) branched cyclodextrin carboxylic acid [e.g. 6-O-cyclomaltoheptaoyl-(6.fwdarw.1)-.alpha.-D-glucosyl-(4.fwdarw.1)-O-.alpha.-D-glucuronic acid Na salt] to improve their solv., bioavailability and stability. Solv. of 3-(N-benzyl-N-methylaminomethyl)-4,7-dihydro-7-(2,6-difluorobenzyl)-5-benzoyl-2-(4-isobutylaminophenyl)-4-oxoethieno[2,3-b]pyridine in the presence of 6-O-cyclomaltoheptaoyl-(6.fwdarw.1)-.alpha.-D-glucosyl-(4.fwdarw.1)-O-.alpha.-D-glucuronic acid Na salt was 20.5 mg/mL vs. 0.5 mg/mL.

IT 181817-15-2P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (LH-RH antagonist compns.)

RN 181817-15-2 CAPLUS

CN Propanamide, N-[4-[1-[(2,6-difluorophenyl)methyl]-1,2,3,4-tetrahydro-3-(3-methoxyphenyl)-5-[[methyl(phenylmethyl)amino]methyl]-2,4-dioxothieno[2,3-d]pyrimidin-6-yl]phenyl]-2-methyl- (9CI) (CA INDEX NAME)



L8 ANSWER 51 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:528659 CAPLUS

DOCUMENT NUMBER: 127:135807

TITLE: Preparation of condensed bicyclic compounds as prolactin production inhibitors

INVENTOR(S): Suzuki, Nobuhiro; Matsumoto, Hirokazu; Furuya, Shuichi

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 149 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 781774	A2	19970702	EP 1996-119589	19961206
EP 781774	A3	19971112		
EP 781774	B1	20020731		
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
CA 2192283	AA	19970609	CA 1996-2192283	19961206
JP 09216823	A2	19970819	JP 1996-326455	19961206
AT 221534	E	20020815	AT 1996-119589	19961206
US 5977132	A	19991102	US 1996-762125	19961209

PRIORITY APPLN. INFO.: JP 1995-345046 A 19951208

OTHER SOURCE(S): MARPAT 127:135807

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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I; W = (un)substituted homo or hetero 5-7-membered ring; Y = (un)substituted homo or hetero 5-7-membered ring] and their salts, useful for the prophylaxis or therapy of diseases accompanied with an excess prolactin prodn. or diseases having enhanced reactivity with prolactin, or for inhibiting puerperal lactation, and also useful as a prophylactic or therapeutic agent of galactorrhea, hyperprolactinemic ovulation disturbance, amenorrhea-galactorrhea syndrome, prolactinoma, and interbrain tumor, and acromegaly, pituitary gigantism, were prep'd. and formulated. Thus, reaction of 4-hydroxy-5-hydroxymethyl-2-(4-methoxyphenyl)-3-methylthieno[2,3-b]pyridine with 2-fluorobenzyl chloride in the presence of KI afforded the title compd. II. For example, the

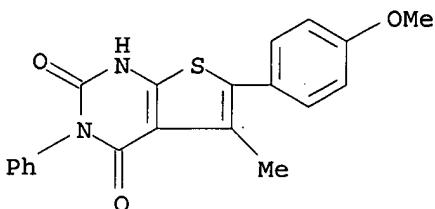
10/ 075,073

title compd. III.HCl showed 34% inhibition of the PRL secretion at 2. μ M and 62% inhibition at 10. μ M.

IT 174072-91-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of condensed bicyclic compds. as prolactin prodn. inhibitors)

RN 174072-91-4 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 6-(4-methoxyphenyl)-5-methyl-3-phenyl- (9CI) (CA INDEX NAME)



L8 ANSWER 52 OF 90 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:254019 CAPLUS
DOCUMENT NUMBER: 126:238392
TITLE: Thienopyrimidine derivatives, their production, and use as endothelin receptor antagonists
INVENTOR(S): Furuya, Shuichi; Choh, Nobuo; Watanabe, Toshifumi
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan; Furuya, Shuichi; Choh, Nobuo; Watanabe, Toshifumi
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9707119	A1	19970227	WO 1996-JP2290	19960813
W:	AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9666701	A1	19970312	AU 1996-66701	19960813
JP 09110873	A2	19970428	JP 1996-213946	19960813
EP 846119	A1	19980610	EP 1996-926638	19960813
EP 846119	B1	20021113		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI			
AT 227726	E	20021115	AT 1996-926638	19960813
US 6140325	A	20001031	US 1996-723151	19960930
PRIORITY APPLN. INFO.:			US 1994-295049	A2 19940826
			JP 1995-209498	A 19950817
			JP 1993-211972	A 19930826
			JP 1994-148126	A 19940629
OTHER SOURCE(S):			WO 1996-JP2290	W 19960813
GI				

MARPAT 126:238392

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

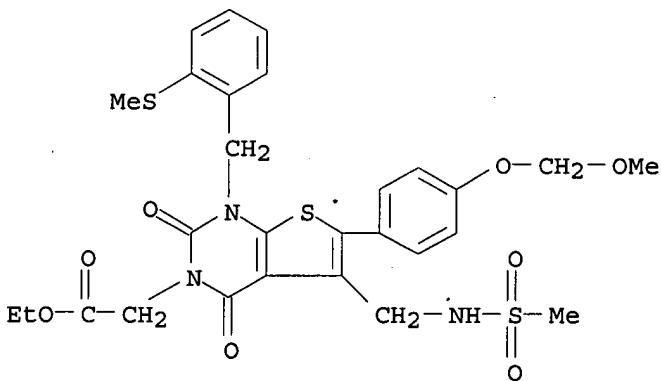
AB Thienopyrimidine derivs., having an optionally esterified carboxyl group and another group capable of forming an anion or a group convertible thereto, such as I, are disclosed [wherein R1, R2 = H, (un)substituted hydrocarbon residue; R3 = C1-6 alkyl optionally substituted by C1-6 alkoxy carbonyl or NHSO_2R_5 ; R5 = C1-6 (halo)alkyl, C6-14 aryl; R4 = (un)substituted hydrocarbon or heterocyclic residue; W = bond or spacer group; n = 1-3; or salt thereof]. I exhibit high endothelin receptor antagonist activity, and are therefore prophylactic or therapeutic for a variety of diseases, esp. vasoconstriction, acute renal failure, myocardial infarction, liver disorders, angina pectoris, cerebral infarction, cerebrovasospasm, hypertension, kidney disease, asthma, etc. For instance, the thienopyrimidine deriv. II underwent a sequence of N-alkylation with 2-(MeS)C6H4CH2Cl (78%), etherification at the phenolic OH with NaH and MeOCH2Cl (59%), benzylic bromination at the Me group using NBS and AIBN, condensation of the bromide with MeSO2NH2 using NaH in DMF (59%), and sapon. with NaOH in aq. THF-MeOH (76%), to give title compd. III. In assays for binding to porcine coronary ETA and ETB receptors in vitro, III had IC50 values of 0.0076 .mu.M and 0.100 .mu.M, resp.

IT 188478-67-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (prepn. of thienopyrimidine derivs. as endothelin receptor antagonists)

RN 188478-67-3 CAPLUS

CN Thieno[2,3-d]pyrimidine-3(2H)-acetic acid, 1,4-dihydro-6-[4-(methoxymethoxy)phenyl]-5-[[[(methylsulfonyl)amino]methyl]-1-[[2-(methylthio)phenyl]methyl]-2,4-dioxo-, ethyl ester (9CI) (CA INDEX NAME)



L8 ANSWER 53 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:205754 CAPLUS

DOCUMENT NUMBER: 126:264304

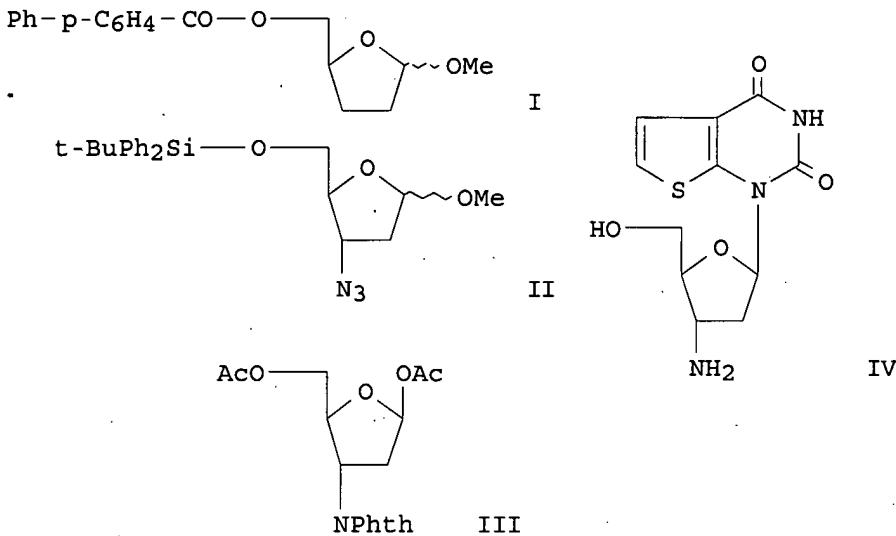
TITLE: Synthesis of 3'-azido, 3'-amino, and 2',3'-dideoxy nucleosides from thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione

AUTHOR(S): El-Barbary, Ahmed A.; El-Brollosy, R.; Pedersen, Erik B.; Nielsen, Claus

CORPORATE SOURCE: Dep. Chem., Odense Univ., Odense, DK-5230, Den.

SOURCE: Sulfur Letters (1996), 20(1), 31-42

PUBLISHER: Harwood
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



AB Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione 5 was silylated and condensed with I-III in the presence of TMS triflate to afford the corresponding 2',3'-dideoxy nucleosides after deblocking. 1-(3'-Amino-2',3'-dideoxy-β-D-erythro-pentofuranosyl)thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione (IV) was preferentially obtained by treatment of the 3'-azido nucleoside V with triphenylphosphine in pyridine, followed by hydrolysis with ammonium hydroxide. In tests against HIV-1 in MT-4 cells or HSV-1 strain McIntyre in monkey kidney cells, V did not show any significant activity at 100.μ.M.

IT 188822-38-0P

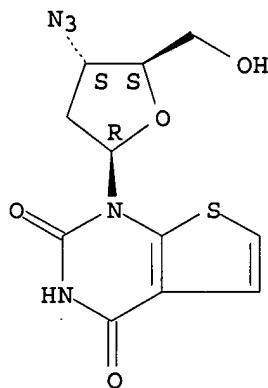
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of azido amino and dideoxy nucleosides from thienopyrimidinedione)

RN 188822-38-0 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 1-(3-azido-2,3-dideoxy-β-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 54 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:119656 CAPLUS

DOCUMENT NUMBER: 126:181948

TITLE: Potassium-resistant triple helix formation and improved intracellular gene targeting by oligodeoxyribonucleotides containing 7-deazaxanthine

AUTHOR(S): Faruqi, A. Fawad; Krawczyk, Stephen H.; Matteucci, Mark D.; Glazer, Peter M.

CORPORATE SOURCE: Dep. Therapeutic Radiology, Yale Univ. Sch. Med., New Haven, CT, 06520-8040, USA

SOURCE: Nucleic Acids Research (1997), 25(3), 633-640

CODEN: NARHAD; ISSN: 0305-1048

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

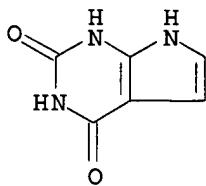
AB Triple helix formation by purine-rich oligonucleotides in the anti-parallel motif is inhibited by physiol. concns. of potassium. Substitution with 7-deazaxanthine (c7X) has been suggested as a strategy to overcome this effect. We have tested this by examp. triple helix formation both in vitro and in vivo by a series of triple helix-forming oligonucleotides (TFOs) contg. guanine plus either adenine, thymine, or c7X. The TFOs were conjugated to psoralen at the 5' end and were designed to bind to a portion of the supF mutation reporter gene. Using in vitro gel mobility shift assays, we found that triplex formation by the c7X-substituted TFOs was relatively resistant to the presence of 140 mM K+. The c7X-contg. TFOs were also superior in gene targeting expts. in mammalian cells, yielding 4- to 5-fold higher mutation frequencies in a shuttle vector-based mutagenesis assay designed to detect mutations induced by third strand-directed psoralen adducts. When the phosphodiester backbone was replaced by a phosphorothioate one, the in vitro binding of the c7X-TFOs was not affected, but the efficiency of in vivo triple helix formation was reduced. These results indicate the utility of the c7X substitution for in vivo gene targeting expts., and they show that the feasibility of the triplex anti-gene strategy can be significantly enhanced by advances in nucleotide chem.

IT 39929-79-8, 7-Deazaxanthine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(potassium-resistant triple helix formation and improved intracellular gene targeting by oligodeoxyribonucleotides contg. 7-deazaxanthine)

RN 39929-79-8 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione (9CI) (CA INDEX NAME)

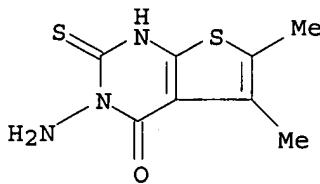


L8 ANSWER 55 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1997:80137 CAPLUS
 DOCUMENT NUMBER: 126:69742
 TITLE: *[(Arylpiperazinyl)alkyl]thio]thieno[2,3-d]pyrimidinone Derivatives as High-Affinity, Selective 5-HT1A Receptor Ligands*
 AUTHOR(S): Modica, Maria; Santagati, Maria; Russo, Filippo; Parotti, Luca; De Gioia, Luca; Selvaggini, Carlo; Salmona, Mario; Mennini, Tiziana
 CORPORATE SOURCE: Dipartimento di Scienze Farmaceutiche, Universita di Catania, Catania, 95125, Italy
 SOURCE: Journal of Medicinal Chemistry (1997), 40(4), 574-585
 CODEN: JMCMAR; ISSN: 0022-2623
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB A series of 2-[(4-aryl-1-piperazinyl)alkyl]thio]thieno[2,3-d]pyrimidin-4(1H)-one and 3-substituted 2-[(4-aryl-1-piperazinyl)alkyl]thio]thieno[2,3-d]pyrimidin-4(3H)-one derivs. was prep'd. and evaluated for *in vitro* 5-HT1A receptor affinity by radioligand binding assays; the selectivity for 5-HT1A receptors rather than .alpha.1-adrenoceptors was also examd. (ratio of the IC50 .alpha.1 to IC50 5-HT1A). The binding tests gave indications about the best features of the [(arylpiperazinyl)alkyl]thio moiety and of the substituents on the thiophene and pyrimidinone rings for efficacious and selective 5-HT1A ligands. The most effective deriv. for displacing [3H]-8-OH-DPAT from rat hippocampal membranes was 3-amino-2-[(3-[4-(2-methoxyphenyl)-1-piperazinyl]propyl]thio]-5,6-dimethylthieno[2,3-d]pyrimidin-4(3H)-one (IC50 = 0.3 nM) with selectivity of 24 for the 5-HT1A over the .alpha.1-adrenoceptor. Another compd., where the 2-methoxyphenyl on the N4 piperazine ring was replaced with a pyrimidine group, showed the best selectivity, with a ratio of 74, while its affinity IC50 for 5-HT1A was 6.8 nM. The results showed the importance of an amino group in position 3 of the thienopyrimidine system for the interaction with 5-HT1A receptor binding sites, although this fragment can affect the affinity and selectivity only if linked to the (arylpiperazinyl)alkyl moiety. Twenty of the 30 mols. used for detg. the binding affinity to 5-HT1A and .alpha.1-adrenergic receptors were selected for QSAR anal. using a series of mol. descriptors and calcd. with the TSAR software.

IT 170244-01-6P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (intermediate; prepn. of piperazinyl thienopyrimidinones as 5-HT1A receptor ligands)

RN 170244-01-6 CAPLUS
 CN Thieno[2,3-d]pyrimidin-4(1H)-one, 3-amino-2,3-dihydro-5,6-dimethyl-2-thioxo- (9CI) (CA INDEX NAME)



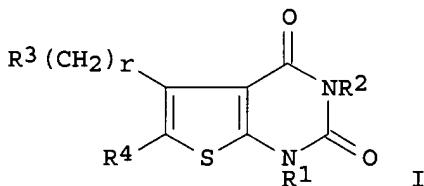
L8 ANSWER 56 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1996:607515 CAPLUS
 DOCUMENT NUMBER: 125:247795
 TITLE: Preparation and formulation of thienopyrimidine derivatives as prophylactic or therapeutic agents for the treatment of hormone dependent diseases
 INVENTOR(S): Furuya, Shuichi; Choh, Nobuo; Kato, Koichi; Hinuma, Shuji
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 94 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9624597	A1	19960815	WO 1996-JP263	19960207
W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, AZ, BY, KG, KZ, RU, TJ				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
WO 9528405	A1	19951026	WO 1995-JP728	19950414
W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
NZ 332206	A	20010629	NZ 1995-332206	19950414
US 5817819	A	19981006	US 1995-454304	19950616
AU 9646327	A1	19960827	AU 1996-46327	19960207
EP 808317	A1	19971126	EP 1996-901958	19960207
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
RU 2158739	C2	20001110	RU 1997-114808	19960207
US 6048863	A	20000411	US 1996-682442	19960717
AU 9883169	A1	19981105	AU 1998-83169	19980908
AU 713116	R2	19991125		
US 6180792	B1	20010130	US 2000-481535	20000112
PRIORITY APPLN. INFO.:			JP 1995-20717	U 19950208
			JP 1995-40151	A 19950228
			US 1995-454304	A2 19950414
			WO 1995-JP728	A 19950414
			JP 1995-271638	A 19951019
			JP 1994-80732	A 19940419
			JP 1994-195541	A 19940819
			JP 1994-271010	A 19941104
			AU 1995-22239	A3 19950414

NZ 1995-283813 A1 19950414
 WO 1996-JP263 W 19960207
 US 1996-682442 A1 19960717

OTHER SOURCE(S) :
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MARPAT 125:247795



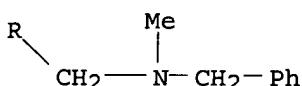
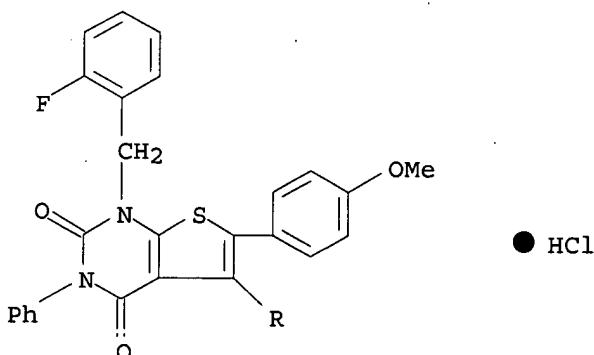
AB The title compds. I [R1 = H, alkyl, etc.; R2 = H, (un)substituted aryl, etc.; R3 = (un)substituted amino; r = 0 - 3; R4 = (un)substituted aryl] are prepd. I are prophylactic or therapeutic agents for the prevention or treatment of several hormone dependent diseases, for example, a sex hormone dependent cancer (e.g. prostatic cancer, cancer of uterine, breast cancer, pituitary adenoma), benign prostatic hypertrophy, myeloma of the uterus, endometriosis, precocious puberty, amenorrhea, premenstrual syndrome, polycystic ovary syndrome and acne vulgaris; I are effective as fertility controlling agents in both sexes ; I can be used as contraceptives for male or female, as ovulation-inducing agents; I can be used as infertility treating agents. I are also useful as spawning promotion agents in fish.

IT 174071-52-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); **Biol (Biological study)**; PREP (Preparation); USES (Uses) (prepn. of thienopyrimidine derivs. as prophylactic or therapeutic agents for treatment of hormone dependent diseases)

RN 174071-52-4 CAPLUS

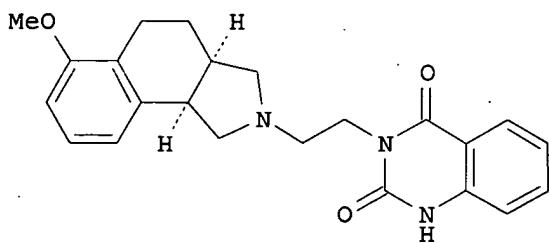
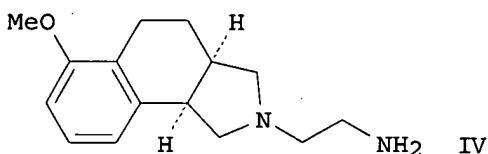
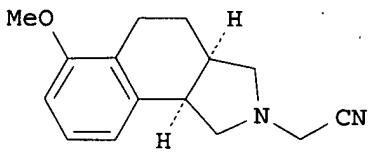
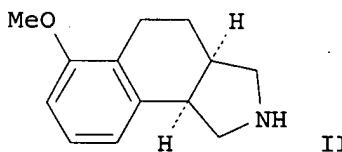
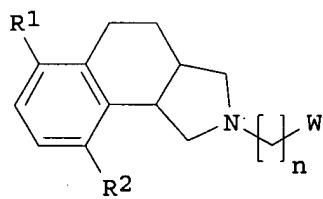
CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 1-[(2-fluorophenyl)methyl]-6-(4-methoxyphenyl)-5-[[methyl(phenylmethyl)amino]methyl]-3-phenyl-, monohydrochloride (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1996:580284. CAPLUS
 DOCUMENT NUMBER: 125:247845
 TITLE: Preparation of heterocyclyl-substituted
 benz[e]isoindoles as .alpha.1 adrenergic antagonists
 INVENTOR(S): Meyer, Michael D.; Altenbach, Robert J.; Basha, Fatima
 Z.; Carroll, William A.; Drizin, Irene; Kerwin, James
 F., Jr.; Lebold, Suzanne A.; Lee, Edmund L.; Pratt,
 John K.; et al.
 PATENT ASSIGNEE(S): Abbott Laboratories, USA
 SOURCE: PCT Int. Appl., 123 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9622991	A1	19960801	WO 1996-US178	19960111
W: AU, CA, JP, KR, MX				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5521181	A	19960528	US 1995-379823	19950127
US 5792767	A	19980811	US 1995-465476	19950605
AU 9647473	A1	19960814	AU 1996-47473	19960111
AU 694611	B2	19980723		
EP 805812	A1	19971112	EP 1996-903364	19960111
EP 805812	B1	20010613		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
JP 11501616	T2	19990209	JP 1996-522872	19960111
PRIORITY APPLN. INFO.:			US 1995-379823	A 19950127
			US 1995-465476	A 19950605
			WO 1996-US178	W 19960111

OTHER SOURCE(S): MARPAT 125:247845
 GI



AB The title compds. [I; R1, R2 = H, C1-6 alkyl, OH, etc.; W = (substituted) quinazolinyl, thieno[3,2-d]pyrimidinyl, thieno[2,3-d]pyrimidinyl, etc.; n = 2-6], useful in the treatment of benign prostatic hyperplasia (BPH), were prep'd. Thus, reaction of benz[e]isoindole II with ClCH₂CN in the presence of EtN(i-Pr)₂ in MeCN followed by treatment of the intermediate III with LiAlH₄/THF and reaction of amine IV with 2-(EtOCO)C₆H₄NCO in PhMe afforded the desired product cis-V.HCl which showed pA₂ of 8.49 for inhibition of phenylephrine(PE)-induced contraction of rat vas.

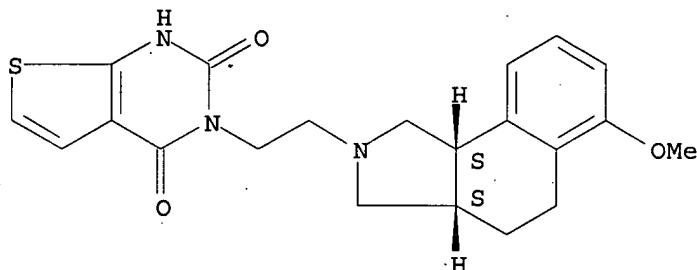
IT 179114-35-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of heterocycl-substituted benz[e]isoindoles as .alpha.1 adrenergic antagonists)

RN 179114-35-3 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 3-[2-[(3aR,9bR)-1,3,3a,4,5,9b-hexahydro-6-methoxy-2H-benz[e]isoindol-2-yl]ethyl]-, monohydrochloride, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

L8 ANSWER 58 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:488756 CAPLUS
 DOCUMENT NUMBER: 125:123719
 TITLE: Treatment of toxoplasmosis
 INVENTOR(S): El Kouni, Mahmoud H.; Guarcello, Vincent; Naguib, Fardos N. M.
 PATENT ASSIGNEE(S): University of Alabama at Birmingham Research Foundation, USA
 SOURCE: PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9618398	A1	19960620	WO 1995-US16343	19951214
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5773424	A	19980630	US 1994-358195	19941216
CA 2183598	AA	19960620	CA 1995-2183598	19951214
EP 755255	A1	19970129	EP 1995-944112	19951214

R:--DE, FR, GB

PRIORITY APPLN. INFO.: US 1994-358195 19941216
WO 1995-US16343 19951214

OTHER SOURCE(S): MARPAT 125:123719

AB Pharmaceutical compns. comprising purine analogs and uses for the compns. in treating parasite infections and other diseases or conditions are described.

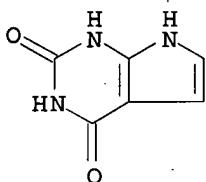
IT 39929-79-8, 7-Deazaxanthine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(purine nucleoside analogs for treatment of toxoplasmosis)

RN 39929-79-8 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione (9CI) (CA INDEX NAME)



L8 ANSWER 59 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:380209 CAPLUS

DOCUMENT NUMBER: 125:114680

TITLE: Bicyclic substituted hexahydrobenz[e]isoindole
.alpha.-1 adrenergic antagonists

INVENTOR(S): Meyer, Michael D.; Altenbach, Robert J.; Carroll, William A.; Drizin, Irene; Lebold, Suzanne A.; Lee, Edmund L.; Sippy, Kevin B.; Tietje, Karin R.; Yamamoto, Diane M.; Kerwin, James F., Jr.

PATENT ASSIGNEE(S): Abbott Laboratories, USA

SOURCE: U.S., 31 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5521181	A	19960528	US 1995-379823	19950127
US 5792767	A	19980811	US 1995-465476	19950605
CA 2210966	AA	19960801	CA 1996-2210966	19960111
WO 9622991	A1	19960801	WO 1996-US178	19960111
W: AU, CA, JP, KR, MX				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9647473	A1	19960814	AU 1996-47473	19960111
AU 694611	B2	19980723		
EP 805812	A1	19971112	EP 1996-903364	19960111
EP 805812	B1	20010613		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
JP 11501616	T2	19990209	JP 1996-522872	19960111
ES 2159721	T3	20011016	ES 1996-903364	19960111
PRIORITY APPLN. INFO.:			US 1995-379823	A2 19950127
			US 1995-465476	A 19950605
			WO 1996-US178	W 19960111

AB Bicyclic substituted hexahydrobenz[e]isoindoles and their pharmaceutically acceptable salts were prep'd. The compds. are .alpha.-1 adrenergic

antagonists and are useful in the treatment of BPH; also disclosed are .alpha.-1 antagonist compns. and a method for antagonizing .alpha.-1 receptors and treating BPH.

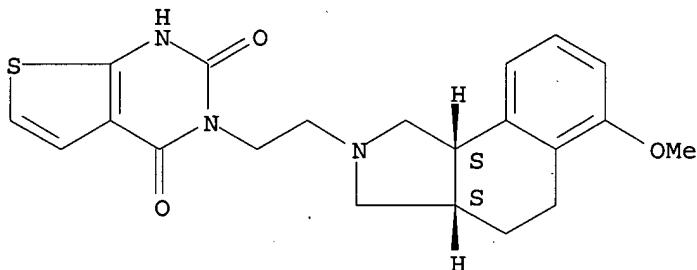
IT 179114-35-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. as adrenergic antagonists)

RN 179114-35-3 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 3- [2- [(3aR,9bR)-1,3,3a,4,5,9b-hexahydro-6-methoxy-2H-benz[e]isoindol-2-yl]ethyl]-, monohydrochloride, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl

L8 ANSWER 60 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:242397 CAPLUS

DOCUMENT NUMBER: 124:310957

TITLE: Differential discrimination of DNA polymerases for variants of the non-standard nucleobase pair between xanthosine and 2,4-diaminopyrimidine, two components of an expanded genetic alphabet

AUTHOR(S): Lutz, Michael J.; Held, Heike A.; Hottiger, Michael; Hubscher, Ulrich; Benner, Steven A.

CORPORATE SOURCE: Department Chemistry, Swiss Federal Institute Technology, Zurich, Switz.

SOURCE: Nucleic Acids Research (1996), 24(7), 1308-13
CODEN: NARHAD; ISSN: 0305-1048

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Mammalian DNA polymerases .alpha. and .epsilon., the Klenow fragment of Escherichia coli DNA polymerase I and HIV-1 reverse transcriptase (RT) were examd. for their ability to incorporate components of an expanded genetic alphabet in different forms. Expts. were performed with templates contg. 2'-deoxyxanthosine (dX) or 2'-deoxy-7-deazaxanthosine (c7dX), both able to adopt a hydrogen bonding acceptor-donor-acceptor pattern on a purine nucleus (puADA). Thus these heterocycles are able to form a non-std. nucleobase pair with 2,4-diaminopyrimidine (pyDAD) that fits the Watson-Crick geometry, but is joined by a non-std. hydrogen bonding pattern. HIV-1 RT incorporated d(pyDAD)TP opposite dX with a high efficiency that was largely independent of pH. Specific incorporation opposite c7dX was significantly lower and also independent of pH. Mammalian DNA polymerases .alpha. and .epsilon. from calf thymus and the Klenow fragment from E.coli DNA polymerase I failed to incorporate d(pyDAD)TP opposite c7cX.

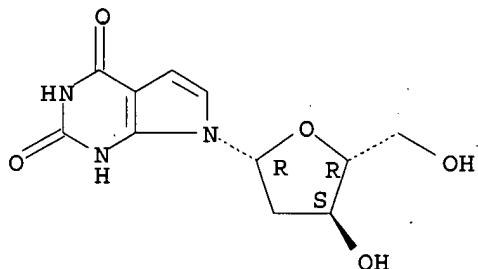
IT - 96022-82-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(differential discrimination of DNA polymerases for variants of non-std. nucleobase pair between xanthosine and 2,4-diaminopyrimidine as two components of expanded genetic alphabet)

RN 96022-82-1 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 7-(2-deoxy-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 61 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:998353 CAPLUS

DOCUMENT NUMBER: 124:202226

TITLE: Preparation of thienopyridinones as gonadotropin-releasing hormone antagonists

INVENTOR(S) : Furuya, Shuichi; Choh, Nobuo; Kato, Koichi; Hinuma, Shuji.

PATENT ASSIGNEE(S) : Takeda Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 203 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE : English

FAMILY ACC. NUM. COUNT: 2

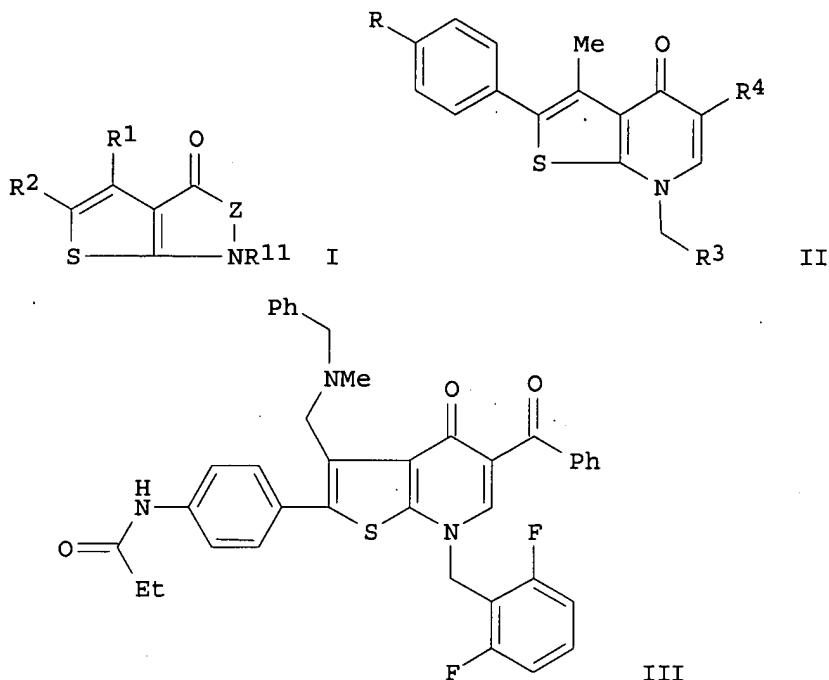
PATENT INFORMATION:

PATENT NO

WO 9528405	A1	19951026	WO 1995-JP728	19950414
W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
TW 449600	B	20010811	TW 1995-84103400	19950410
CA 2186124	AA	19951026	CA 1995-2186124	19950414
AU 9522239	A1	19951110	AU 1995-22239	19950414
AU 697472	B2	19981008		
EP 756599	A1	19970205	EP 1995-915318	19950414
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
CN 1146206	A	19970326	CN 1995-192628	19950414
CN 1092197	B	20021009		
HU 76320	A2	19970828	HU 1996-2884	19950414
RU 2150470	C1	20000610	RU 1996-120203	19950414
NZ 332206	A	20010629	NZ 1995-332206	19950414
JP 08295693	A2	19961112	JP 1995-91068	19950417
BR 9501736	A	19951114	BR 1995-1736	19950419
US 5817819	A	19981006	US 1995-454304	19950616

CA 2211969	AA 19960815	CA 1996-2211969	19960207
WO 9624597	A1 19960815	WO 1996-JP263	19960207
W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, AZ, BY, KG, KZ, RU, TJ			
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9646327	A1 19960827	AU 1996-46327	19960207
JP 09169768	A2 19970630	JP 1996-21342	19960207
EP 808317	A1 19971126	EP 1996-901958	19960207
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE			
CN 1173868	A 19980218	CN 1996-191854	19960207
CN 1064045	B 20010404		
BR 9600341	A 19980915	BR 1996-341	19960207
NO 9604434	A 19961018	NO 1996-4434	19961018
FI 9604195	A 19961217	FI 1996-4195	19961018
AU 9883169	A1 19981105	AU 1998-83169	19980908
AU 713116	B2 19991125		
US 6187788	B1 20010213	US 1998-164349	19981001
CZ 290723	B6 20021016	CZ 2000-2915	20000809
US 6514988	B1 20030204	US 2000-672777	20000929
PRIORITY APPLN. INFO.:			
	JP 1994-80732	A 19940419	
	JP 1994-195541	A 19940819	
	JP 1994-271010	A 19941104	
	JP 1995-20717	A 19950208	
	JP 1995-40151	A 19950228	
	AU 1995-22239	A3 19950414	
	NZ 1995-283813	A1 19950414	
	US 1995-454304	A2 19950414	
	WO 1995-JP728	W 19950414	
	JP 1995-91068	A 19950417	
	JP 1995-271638	A 19951019	
	WO 1996-JP263	W 19960207	
	US 1998-164349	A3 19981001	

OTHER SOURCE(S) : MARPAT 124:202226
GI



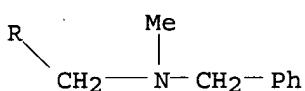
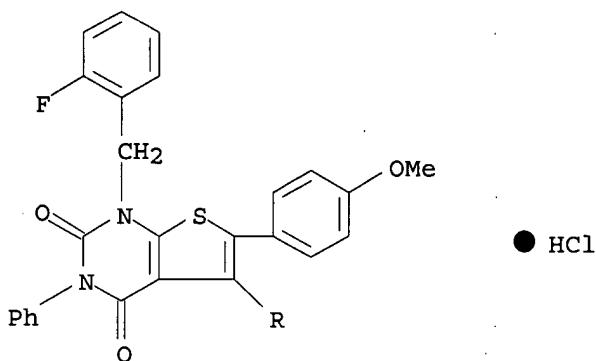
AB Title compds. [I; R₁, R₂ = H, C-, N-, or S-attached group (sic); R₁₁ = (CH₂)_nR₃; R₃ = homocyclic (sic) or heterocyclic group; Z = CR₄:CR₅; R₄ = H, CHO, (esterified or amidated) CO₂H, etc.; R₅ = H, C-attached group; n = 0-3] and I [R₁ = (CH₂)_rR₁₃; R₂ = (un)substituted aryl; R₁₁ = H, (ar)alkyl, etc.; R₁₃ = (un)substituted amino; Z = NR₁₂CO; R₁₂ = H, alkyl, aryl(alkyl), etc.; r = 0-3] were prep'd. Thus, 4-(MeO)C₆H₄CH₂COMe was condensed with NCCH₂CO₂Et and the product treated with S/Et₂NH to give Et 2-amino-4-methyl-5-(4-methoxyphenyl)thiophene-3-carboxylate which was N-alkylated by EtOCH:C(CO₂Et)₂ and the product cyclized to give, after NaH treatment and condensation with 2-(MeO)C₆H₄CH₂Cl, title product II [R = MeO, R₃ = C₆H₄(OMe)-2, R₄ = CO₂Et]. II [R = NO₂, R₃ = C₆H₃F₂-2,6, R₄ = COPh] was converted in 4 steps to title compd. III which gave apprx. 85% redn. of mouse plasma testosterone levels at 30mg/kg/day orally for 3 days.

IT 174071-52-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of thienopyridinones as gonadotropin-releasing hormone antagonists)

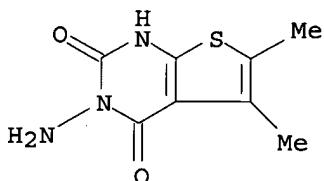
RN 174071-52-4 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 1-[(2-fluorophenyl)methyl]-6-(4-methoxyphenyl)-5-[[methyl(phenylmethyl)amino]methyl]-3-phenyl-, monohydrochloride (9CI) (CA INDEX NAME)

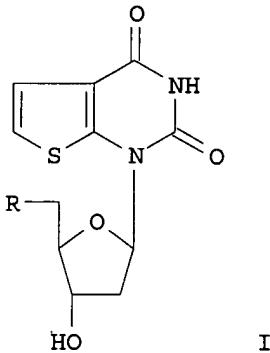


L8 ANSWER 62 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:981373 CAPLUS
 DOCUMENT NUMBER: 124:106009
 TITLE: Synthesis and pharmacological evaluation of
 thieno[2,3-d]pyrimidine-2,4-dione and
 5H-pyrimido-[5,4-b]indole-2,4-dione derivatives
 AUTHOR(S): Santagati, Natale Alfredo; Caruso, Antonina; Cutuli,
 Vincenza M. C.; Caccamo, Francesco
 CORPORATE SOURCE: Ist. Chim. Farm. Tossicol., Univ. Catania, Catania,
 95125, Italy
 SOURCE: Farmaco (1995), 50(10), 689-95
 CODEN: FRMCE8
 PUBLISHER: Societa Chimica Italiana
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Two series of novel derivs. based on the thienopyrimidine and
 pyrimidoindole ring systems, both N-substituted in position 3, were prep'd.
 The compds. were obtained by the reaction of N-amino groups of
 5,6-dimethyl-thieno[2,3-d]pyrimidine-2,4-dione and of 5H-pyrimido[5,4-
 b]indole-2,4-dione with arom. aldehydes. Some of these compds. showed an
 appreciable analgesic and antiinflammatory activities and low acute
 toxicity with an optimal gastric tolerance.
 IT 62349-28-4
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); RCT (Reactant); BIOL (Biological study);
 BIOL (Biological study)
 (prepn. and pharmacol. evaluation of thienopyrimidinediones and
 pyrimidoindolediones)
 RN 62349-28-4 CAPLUS
 CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 3-amino-5,6-dimethyl- (9CI) (CA
 INDEX NAME)



L8 ANSWER 63 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1995:722023 CAPLUS
 DOCUMENT NUMBER: 124:9279
 TITLE: Synthesis of 5'-amino- and 5'-azido-2',5'-dideoxy nucleosides from thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione
 AUTHOR(S): El-Barbary, A. A.; El-Brollsy, N. R.; Pedersen, E. B.; Nielsen, C.
 CORPORATE SOURCE: Dep. Chem., Odense Univ., Odense M, DK-5230, Den.
 SOURCE: Monatshefte fuer Chemie (1995), 126(5), 593-600
 CODEN: MOCMB7; ISSN: 0026-9247
 PUBLISHER: Springer
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



AB Title deoxyribonucleosides, e.g. I (R = NH₂, N₃), were prepd. from thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione and tested for their antiviral activity. None of the title compds. showed any activity against HIV-1 or HSV-1.

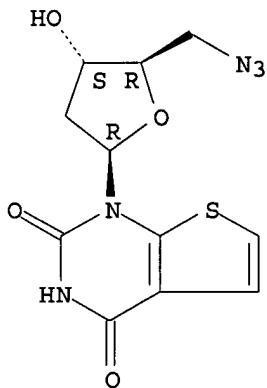
IT 171074-73-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (synthesis of amino and azidodideoxy nucleosides from thienopyrimidinedione)

RN 171074-73-0 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 1-(5-azido-2,5-dideoxy-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

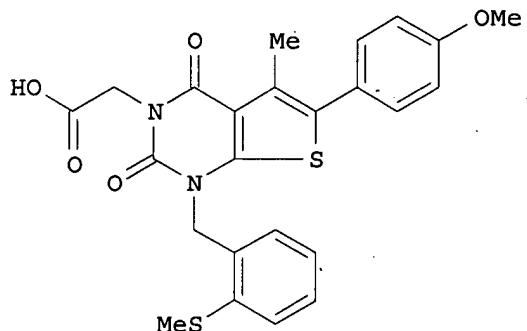
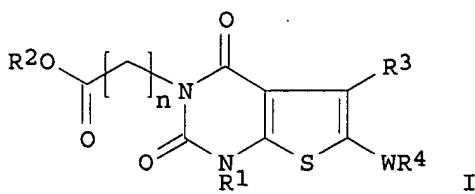
Absolute stereochemistry.



L8 ANSWER 64 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1995:719173 CAPLUS
 DOCUMENT NUMBER: 123:112074
 TITLE: Thienopyrimidine derivatives, their production, and use as endothelin antagonists.
 INVENTOR(S): Furuya, Shuichi; Choh, Nobuo; Ohtaki, Tetsuya; Watanabe, Toshifumi
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
 SOURCE: Eur. Pat. Appl., 51 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 640606	A1	19950301	EP 1994-113169	19940824
EP 640606	B1	20011107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
AT 208393	E	20011115	AT 1994-113169	19940824
CA 2130859	AA	19950227	CA 1994-2130859	19940825
NO 9403146	A	19950227	NO 1994-3146	19940825
FI 9403912	A	19950605	FI 1994-3912	19940825
HU 71116	A2	19951128	HU 1994-2453	19940825
HU 218939	B	20010129		
JP 08073467	A2	19960319	JP 1994-200737	19940825
RU 2142275	C1	19991210	RU 1994-30480	19940825
CN 1106663	A	19950816	CN 1994-115719	19940826
FI 9500021	A	19951230	FI 1995-21	19950102
FI 9900387	A	19990223	FI 1999-387	19990223
PRIORITY APPLN. INFO.:				
		JP 1993-211972	A	19930826
		JP 1994-148126	A	19940629
		JP 1994-200737	A	19940825

OTHER SOURCE(S): MARPAT 123:112074
 GI



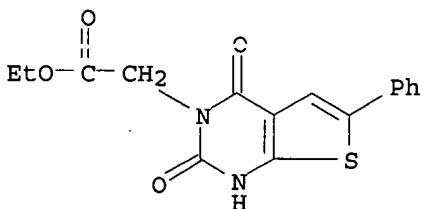
AB Thienopyrimidines I [R1, R2 = H, (un)substituted hydrocarbyl; R3 = H, group bonded through a C or N atom; R4 = (un)substituted hydrocarbyl; W = bond or connecting group; n = 1-3] and salts have potent endothelin antagonist activity, thus being useful for treating or preventing acute renal insufficiency, myocardial infarction, liver insufficiency, and a variety of other conditions. For example, Et 2-amino-4-methyl-5-(4-methoxyphenyl)thiophene-3-carboxylate [prepn. given] underwent reaction with Et isocyanatoacetate and subsequent cyclization in EtOH contg. EtONa to give 96% I [n = 1, R1 = H, R2 = Et, R3 = Me, WR4 = C6H4OMe-4]. N-Alkylation of the latter using NaH and 2-MeSC6H4CH2Cl gave 88% I [R1 = CH2C6H4SMe-2, others as above], which was hydrolyzed by 1N aq. NaOH in THF-MeOH to give title compd. II, a preferred compd. Fourteen selected I had IC50 of 0.066-2.9 .mu.M and 0.66-33 .mu.M against binding of [125I]-endothelin-1 to insect-expressed human endothelin-A and -B receptors in vitro, resp. Over 180 I were prepd., plus 10 pharmaceutical formulations.

IT 165807-42-1P

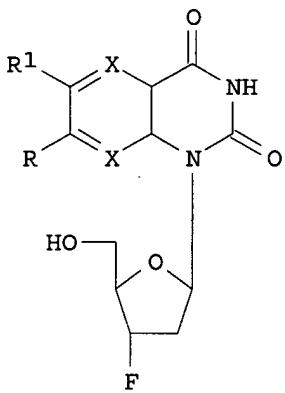
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (prepn. of thienopyrimidine derivs. as endothelin antagonists)

RN 165807-42-1 CAPLUS

CN Thieno[2,3-d]pyrimidine-3(2H)-acetic acid, 1,4-dihydro-2,4-dioxo-6-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1995:666534 CAPLUS
 DOCUMENT NUMBER: 123:340709
 TITLE: Synthesis and antiviral evaluation of quinazoline, thieno-[2,3-d]pyrimidine, and lumazine analogs of 3'-fluoro-3'-deoxythymidine (FLT)
 AUTHOR(S): El-Barbary, Ahmed A.; El-Brollosy, Nasser R.; Abdel-Bary, Hamed M.; Pedersen, Erik B.; Stein, Paul; Nielsen, Claus
 CORPORATE SOURCE: Dep. of Chemistry, Odense Univ., Odense, DK-5230, Den.
 SOURCE: Liebigs Annalen (1995), (7), 1371-5
 CODEN: LANAEM; ISSN: 0947-3440
 PUBLISHER: VCH
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



AB 2,4(1H,3H)-quinazolinediones, lumazine and thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione were silylated and condensed with Me 2,3-dideoxyl-3-fluoro-5-O-(4-phenylbenzoyl)-.beta.-D-erythro-pentofuranoside by using trimethylsilyl triflate as a catalyst to afford after deblocking the corresponding nucleosides, e.g. I (R = R1 = H, OMe; R = H, R1 = Me, X = CH2; R = R1 = H, X = N). The new FLT analogs I were devoid of activity against HIV-1 and HSV-1.

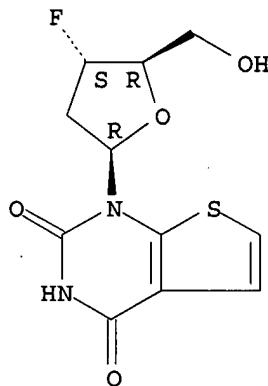
IT 170452-52-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (synthesis and antiviral evaluation of quinazoline and thienopyrimidine and lumazine analogs of fluorodeoxythymidine)

RN 170452-52-5 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 1-(2,3-dideoxy-3-fluoro-.beta.-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

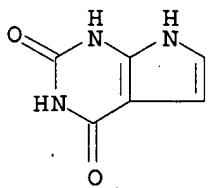


L8 ANSWER 66 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1995:663730 CAPLUS
 DOCUMENT NUMBER: 123:104318
 TITLE: Overcoming potassium-mediated triplex inhibition
 AUTHOR(S): Olivas, Wendy M.; Maher, L. James, III
 CORPORATE SOURCE: Eppley Inst. Research in Cancer and Allied Diseases,
 Univ. Nebraska Med. Center, Omaha, NE, 68198-6805, USA
 Nucleic Acids Research (1995), 23(11), 1936-41
 SOURCE: CODEN: NARHAD; ISSN: 0305-1048
 PUBLISHER: Oxford University Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English

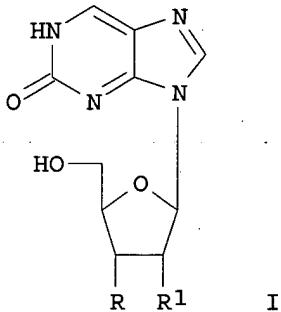
AB Sequence-specific duplex DNA recognition by oligonucleotide-directed triple helix formation is a possible approach to *in vivo* gene inhibition. However, triple helix formation involving guanine-rich oligonucleotides is inhibited by physiol. ions, particularly K+, most likely due to oligonucleotide aggregation via guanine quartets. Three oligodeoxynucleotide (ODN) derivs. were tested for their ability to resist guanine quartet-mediated aggregation, yet form stable triplexes. Electrophoretic mobility shift and di-Me sulfate footprinting assays were used to analyze the formation of triplexes involving these oligonucleotide derivs. In the absence of K+, all ODNs had similar binding affinities for the duplex target. Triplexes involving a 14mer ODN deriv. contg. 7-deazaxanthine substituted for three thymine bases or an 18mer ODN contg. two addnl. thymines on both the 5' and 3' termini were abolished by 50 mM K+. Remarkably, triplexes involving an ODN deriv. contg. four 6-thioguanine bases substituted for guanine resisted K+ inhibition up to 200 mM. We hypothesize that the increased radius and decreased electronegativity of sulfur in the 6-position of guanine destabilize potential guanine quartets. These results improve the prospects for creating ODNs that might serve as specific and efficient gene repressors *in vivo*.

IT 39929-79-8, 7-Deazaxanthine
 RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)
 (triplexes involving a 14mer oligodeoxynucleotide deriv. contg. 7-deazaxanthine substituted for three thymine bases or an 18mer ODN . contg. two addnl. thymines on both the 5' and 3' termini were abolished by 50 mM K+)

RN 39929-79-8 CAPLUS
 CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione (9CI) (CA INDEX NAME)



L8 ANSWER 67 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1995:631101 CAPLUS
 DOCUMENT NUMBER: 124:87639
 TITLE: 2'-Deoxyisoinosine: synthesis of a highly fluorescent nucleoside and its incorporation into oligonucleotides
 AUTHOR(S): Seela, Frank; Chen, Yaoming
 CORPORATE SOURCE: Lab. Organische Bioorganische Chemie, Univ. Osnabrueck, Osnabrueck, D-49069, Germany
 SOURCE: Nucleosides & Nucleotides (1995), 14(3-5), 863-6
 CODEN: NUNUD5; ISSN: 0732-8311
 PUBLISHER: Dekker
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



AB Fluorescent 2'-deoxyisoinosine I (R = OH, R1 = H) and the related 2',3'-dideoxynucleosides I (R = R1 = H; RR1 = bond) were prepd. and employed in solid-phase oligodeoxyribonucleotide duplexes synthesis.

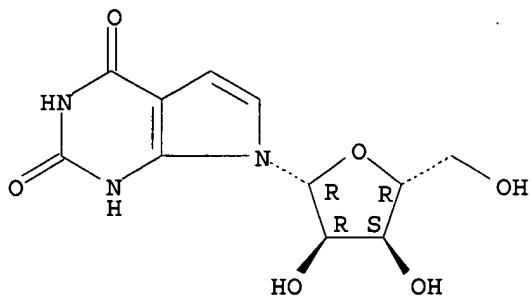
IT 170024-38-1P

RL: BPN (Biosynthetic preparation); BIOL (Biological study);
 PREP (Preparation)
 (deoxyisoinosine synthesis of a highly fluorescent nucleoside and its incorporation into oligodeoxyribonucleotides)

RN 170024-38-1 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 7-.beta.-D-ribofuranosyl-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 68 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:570227 CAPLUS

DOCUMENT NUMBER: 123:112617

TITLE: Synthesis and antiviral evaluation of furopyrimidinediones cyclic and acyclic, nucleoside analogs

AUTHOR(S): Renault, Jacques; Jourdan, Fabrice; Laduree, Daniel; Robba, Max

CORPORATE SOURCE: Cent. Etudes Recherche Med. Normandie, U.F.R. Sci. Pharm, Caen, 14032, Fr.

SOURCE: Heterocycles (1995), 41(5), 937-45

CODEN: HTCYAM; ISSN: 0385-5414

PUBLISHER: Japan Institute of Heterocyclic Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Following Vorbrueggen and Niedballa's method, the synthesis of new cyclic and acyclic nucleoside analogs, whose aglycon was a furopyrimidinedione, was carried out. Among the various compds. that were obtained was the a .beta.-D-ribonucleoside which gave us access to a .beta.-D-arabino nucleoside whose synthesis by Vorbrueggen and Niedballa's method had remained unsuccessful. All the new compds. were tested against human immunodeficiency virus 1 (HIV-1). None of these compds. showed significant activity.

IT 165903-88-8P

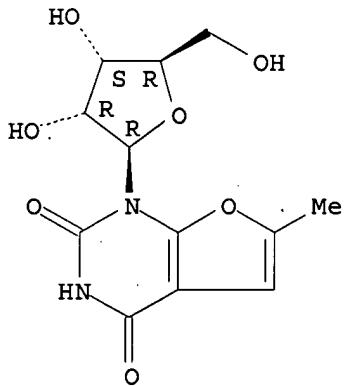
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of furopyrimidinedione cyclic and acyclic nucleoside analogs as virucides)

RN 165903-88-8 CAPLUS

CN Furo[2,3-d]pyrimidine-2,4(1H,3H)-dione, 6-methyl-1-.beta.-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 69 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:498164 CAPLUS

ACCESSION NUMBER: 1995.119.11
DOCUMENT NUMBER: 123:228136

TITLE: Polycyclic azines with heteroatoms in 1- and 3-position. 40. Synthesis of heterocyclic immunomodulators. II. 3-Mercaptoalkylthieno[2,3-d]pyrimidine-2,4(1H,3H)-diones: synthesis and test for immuno-stimulating activity

AUTHOR(S) : Guetschow, Michael; Droeßler, Karl; Leistner, Siegfried

CORPORATE SOURCE: Institut Pharmazie, Universitaet Leipzig, Leipzig,
D-04103, Germany

SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1995), 328(3), 231-4

CODEN: ARPMAS; ISSN: 0365-6233

PUBLISHER: VCH

DOCUMENT TYPE: Journal

LANGUAGE: German
 AB A series of 3-mercaptopalkylthieno[2,3-d]pyrimidine-2,4(1H,3H)-diones was prep'd. and their immunostimulating activity was examd. The title compds. were obtained conveniently by hydrolytic ring cleavage of fused thiazolo- or 1,3-thiazinothienopyrimidines under alk. or acidic reaction conditions. The ms fragmentation of the thieno[2,3-d]pyrimidine-2,4-diones was discussed. In the delayed type hypersensitivity (DTH) test some compds. 3-mercaptopalkylthieno[2,3-d]pyrimidine-2,4(1H,3H)-diones showed immunostimulating activities in the range of isoprinosine.

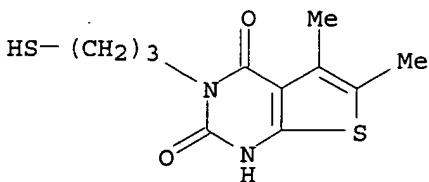
IT 138701-77-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

((mercaptoalkyl)thieno[2,3-d]pyrimidinediones as immunostimulants)

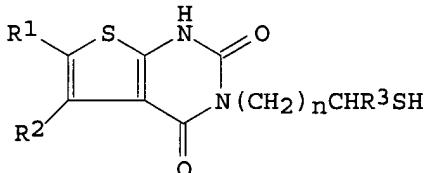
RN 138701-77-6 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 3-(3-mercaptopropyl)-5,6-dimethyl- (9CI) (CA INDEX NAME)

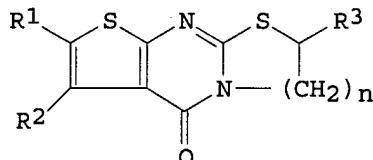


L8 ANSWER 70 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1992:448589 CAPLUS
 DOCUMENT NUMBER: 117:48589
 TITLE: Preparation of 3-(mercaptoalkyl)thieno[2,3-d]pyrimidine-2,4-(1H,3H)-diones
 INVENTOR(S): Leistner, Siegfried; Guetschow, Michael; Droessler, Karl; Wagner, Guenther; Kluge, Siegfried; Lohmann, Dieter
 PATENT ASSIGNEE(S): Arzneimittelwerk Dresden G.m.b.H., Germany
 SOURCE: Ger. (East), 12 pp.
 CODEN: GEXXA8
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 293824	A5	19910912	DD 1990-340037	19900424
PRIORITY APPLN. INFO.:			DD 1990-340037	19900424
OTHER SOURCE(S):		MARPAT 117:48589		
GI				



I



II

AB Title compds. I (R1, R2 = H, alkyl, Ph; R1R2 = alkylene; R3 = H, Me; n = 1, 2) were prep'd. by hydrolyzing the cyclic isothioureas II. Thus, II [n = 1, R2R2 = (CH2)4, R3 = H] was treated with Zn-NaOH(aq.) to give 86% I [n = 1, R1R2 = (CH2)4, R3 = H, III] which had immunostimulant activity in various tests. III was also effective against various plant viruses at 4 mmol/L.

IT 138701-79-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. and immunosuppressant activity of)

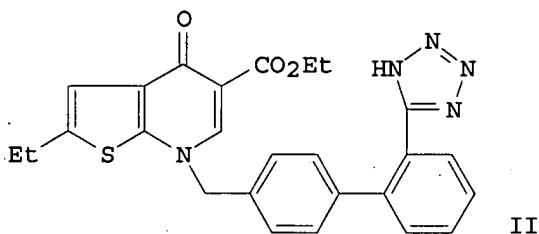
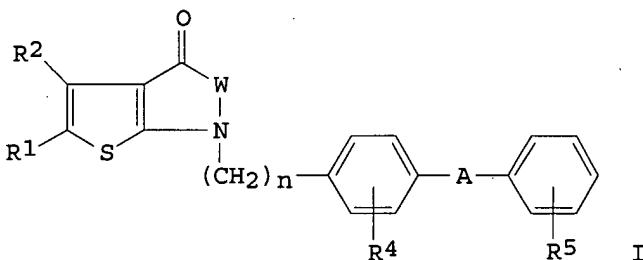
RN 138701-79-8 CAPLUS

L8 ANSWER 71 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1991:632279 CAPLUS
 DOCUMENT NUMBER: 115:232279
 TITLE: Preparation of 7-(biphenylmethyl)-4-oxothieno[2,3-b]pyrimidine-5-carboxylates as angiotensin II antagonists
 INVENTOR(S): Morimoto, Akira; Nishikawa, Kohei; Naka, Takehiko
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
 SOURCE: Eur. Pat. Appl., 47 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 443568	A1	19910828	EP 1991-102513	19910221
EP 443568	B1	19960612		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
CA 2036618	AA	19910823	CA 1991-2036618	19910219
CA 2036618	C	20021029		
JP 07061986	A2	19950307	JP 1991-27273	19910221
JP 3035745	B2	20000424		
AT 139233	E	19960615	AT 1991-102513	19910221
US 5284661	A	19940208	US 1993-47368	19930419
PRIORITY APPLN. INFO.:				
		JP 1990-42125	A	19900222
		JP 1991-3958	A	19910117
		US 1991-657051	B1	19910219

OTHER SOURCE(S): MARPAT 115:232279
GI



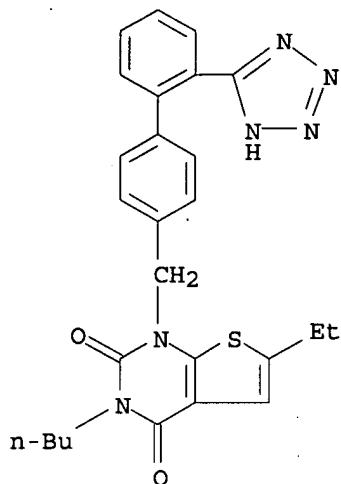
AB Title compds. [I; R1, R2 = H, halo, cyano, NO₂, acylamino, (substituted) hydrocarbyl; R3 = H, (substituted) alkyl, alkenyl, COX; X = H, alkoxy, OH, halo, amino; R4 = H, halo, NO₂; R5 = residue capable of forming an anion or convertible to an anion; R6 = H, (substituted) alkyl, alkenyl; R7 = (substituted) hydrocarbyl; A = bond, spacer group; n = 1,2; W = CR₃:CR₆, NR₇CO], were prep'd. Thus; Et 2-ethyl-4-hydroxythieno[2,3-b]pyridine-5-carboxylate, 4-(2'-cyanophenyl)benzyl chloride, and K₂CO₃ were stirred at 90.degree. for 2 h to give 60% coupling product, which was stirred with NaN₃ and NH₄Cl in DMF at 110.degree. to give 13% title compd. II. Several I at 30 mg/kg orally in rats inhibited the pressor response of angiotensin II by .gtoreq.70%. Tablets were prep'd. contg. II.

IT 137070-06-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prep'n. of, as angiotensin II antagonist)

RN 137070-06-5 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 3-butyl-6-ethyl-1-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 72 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1991:622761 CAPLUS

DOCUMENT NUMBER: 115:222761

TITLE: Induction of differentiation of human myeloid leukemia
HL-60 cells by novel pyrimidine nucleoside analogsAUTHOR(S): Makishima, Makoto; Honma, Yoshio; Hozumi, Motoo;
Sampi, Kazumi; Hattori, Masao; Ishikawa, Ichiro;
Ogura, Haruo; Kawahara, Norio; Kanaiwa, Takao;
Motoyoshi, Kazuo

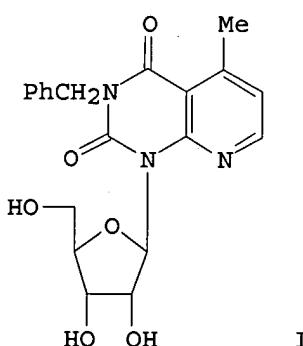
CORPORATE SOURCE: Saitama Cancer Cent., Saitama, 362, Japan

SOURCE: Biochimica et Biophysica Acta (1991), 1094(1), 1-7

CODEN: BBACAQ; ISSN: 0006-3002

DOCUMENT TYPE: Journal
LANGUAGE: English

GI



I

AB New pyrimidine nucleoside analogs were tested for their growth-inhibiting and differentiation-inducing activities on human myeloid leukemia HL-60 cells. Some of the analogs induced nitro blue tetrazolium (NBT) reducing activity in the HL-60 cells. The inducing activities of these compds. were compared at their concns. for 50% inhibition of cell growth. TI-79 (I) was a very effective inducer of NBT-redn. and of differentiation of the cells into mature granulocytes. The induction of NBT-reducing activity by I was inhibited by high concns. of the natural nucleoside, adenosine. Other differentiation inducers, such as retinoic acid, 1,α,25-dihydroxyvitamin D3 and staurosporin markedly enhanced the

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induction of differentiation of HL-60-cells by I... Nucleoside analogs such as I should be useful for differentiation therapy of some types of myelogenous leukemia.

IT 128745-40-4, TI 56

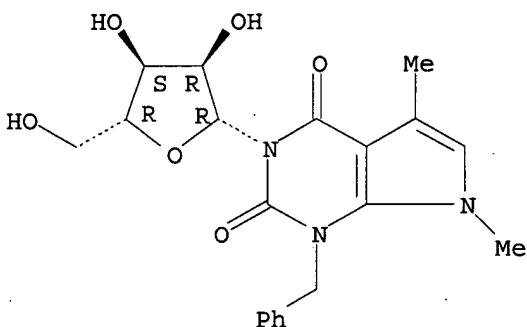
RL: BIOL (Biological study)

(leukemia-inhibiting activity of, differentiation induction in, structure in relation to, in human cells)

RN 128745-40-4 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 5,7-dimethyl-1-(phenylmethyl)-3-.beta.-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 73 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1991:102035 CAPLUS

DOCUMENT NUMBER: 114:102035

TITLE: Preparation of thienopyrimidinediones as aldose reductase inhibitors

INVENTOR(S): Ogawa, Kazuo; Yamawaki, Ichiro; Matsushita, Yoichi; Nomura, Naruo

PATENT ASSIGNEE(S): Taiho Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

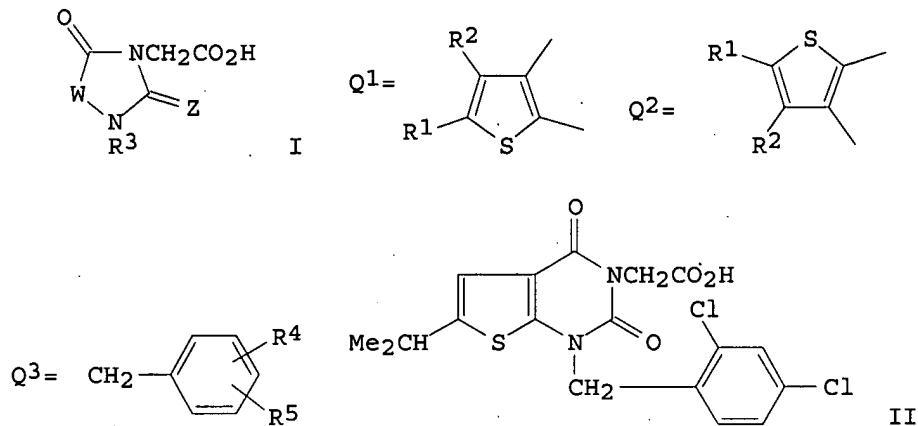
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02225485	A2	19900907	JP 1989-46743	19890227
PRIORITY APPLN. INFO.:			JP 1989-46743	19890227
OTHER SOURCE(S):	MARPAT	114:102035		

GI



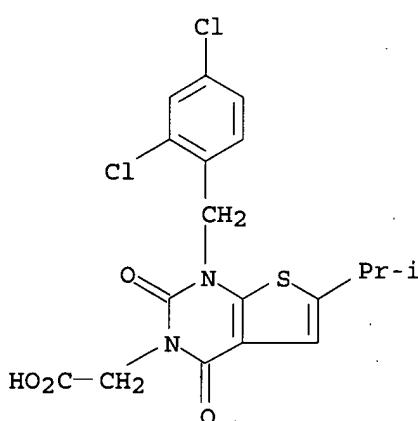
AB The title compds. I (W = Q₁, Q₂, etc.; R₁, R₂ = H, halo, alkyl; or R₁R₂ = alkylene; R₃ = alkyl, Q₃; R₄ = halo; R₅ = H, halo; Z = O, S) were prep'd. I are useful as aldose reductase inhibitors for treatment of diabetes complications (no data). A mixt. of 1-(2,4-dichlorobenzyl-3-ethoxycarbonylmethyl-6-isopropylthieno[2,3-d]pyrimidine-2,4(1H,3H)-dione and HCl in AcOH was refluxed for 2 h to give thienopyrimidine II.

IT 132221-15-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of, as aldose reductase inhibitor)

RN 132221-15-9 CAPLUS

CN Thieno[2,3-d]pyrimidine-3(2H)-acetic acid, 1-[(2,4-dichlorophenyl)methyl]-1,4-dihydro-6-(1-methylethyl)-2,4-dioxo- (9CI) (CA INDEX NAME)



L8 ANSWER 74 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1991:98591 CAPLUS

DOCUMENT NUMBER: 114:98591

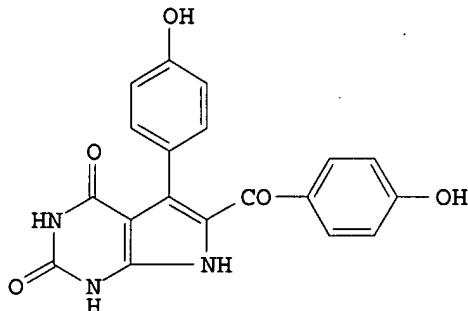
TITLE: Rigidin, a novel alkaloid with calmodulin antagonistic activity from the okinawan marine tunicate Eudistoma cf. rigida

AUTHOR(S): Kobayashi, Junichi; Cheng, Jie Fei; Kikuchi, Yumiko; Ishibashi, Masami; Yamamura, Shosuke; Ohizumi, Yasushi; Ohta, Tomihisa; Nozoe, Shigeo

CORPORATE SOURCE: Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan

10/ 075,073

SOURCE: Tetrahedron Letters (1990), 31(32), 4617-20
DOCUMENT TYPE: Journal
LANGUAGE: English
GI
CODEN: TELEAY; ISSN: 0040-4039



1

AB A novel pyrrolopyrimidine alkaloid, rigidin (I) with calmodulin antagonistic activity was isolated from the Okinawan marine tunicate *E. rigida*. The structure was elucidated on the basis of spectral data of I and its pentamethyl deriv.

IT 132160-44-2, Rigidine

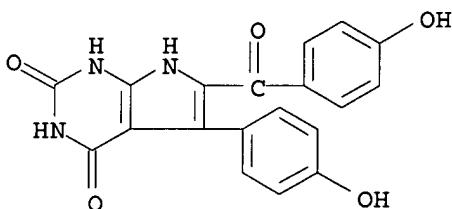
RL: BOC (Biological occurrence); BSU (Biological study, unclassified);

BIOL (Biological study); OCCU (Occurrence)

(of tunicate, isolation and mol. structure and calmodulin antagonistic activity of)

RN 132160-44-2 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 6-(4-hydroxybenzoyl)-5-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



L8 ANSWER 75 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1990:514925 CAPLUS

DOCUMENT NUMBER: 113:114925

TITLE: Pyrimidines. 65. Synthesis of 6-substituted thieno[2,3-d]pyrimidine-2,4(1H,3H)-diones

AUTHOR(S) : Hirota, Kosaku; Shirahashi, Mitsuomi; Senda, Shigeo; Yogo, Motoi

CORPORATE SOURCE: Gifu Pharm. Univ., Gifu, 502, Japan

SOURCE: Journal of Heterocyclic Chemistry (1990), 27(3), 717-21

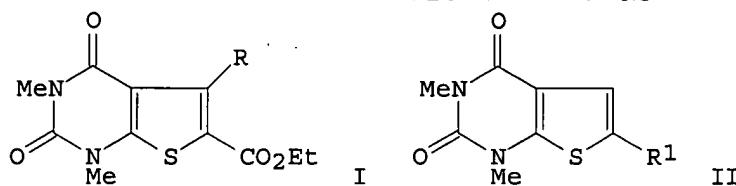
CODEN: JHTCAD; ISSN: 0022-152X

DOCUMENT TYPE: Journal

LANGUAGE : English

OTHER SOURCE(S): CASREACT 113:114925

GI

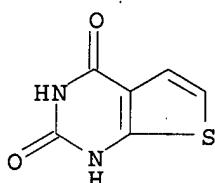


AB Thieno[2,3-d]pyrimidine-2,4-(1H,3H)-dione derivs. were synthesized. 6-Ethoxycarbonyl derivs. I (R = H, NH₂) were prep'd. by treatment of 6-chloro-5-formyluracil and 6-chloro-5-cyanouracil with Et 2-mercaptoacetate in the presence of a base. Electrophilic substitution reactions (Vilsmeier-Haack reaction, bromination, and nitration) of thieno[2,3-d]pyrimidine II (R₁ = H), prep'd. by condensation of 6-mercaptopuracil with chloroacetaldehyde, afforded 6-formyl-, 6-bromo-, and 6-nitrothieno[2,3-d]pyrimidines II (R₁ = CHO, Br, NO₂), resp.

IT 18740-38-0DP, Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, derivs.
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (prepn. and biol. activity of)

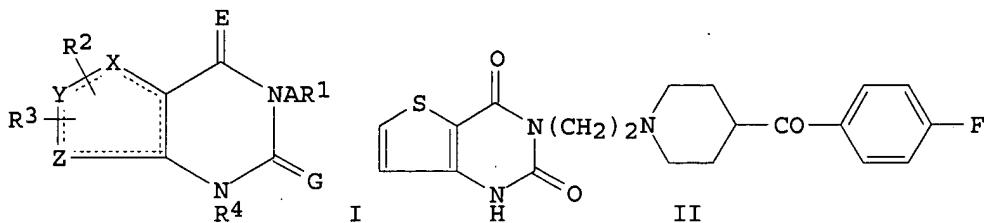
RN 18740-38-0 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione (8CI, 9CI) (CA INDEX NAME)



L8 ANSWER 76 OF 90 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:139045 CAPLUS
DOCUMENT NUMBER: 112:139045
TITLE: Preparation of thienopyrimidine-2,4-diones as allergy
inhibitors
INVENTOR(S): Fukumi, Hiroshi; Sakamoto, Toshiaki; Sugiyama, Mitsuo;
Yamaguchi, Takeshi
PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01213284	A2	19890828	JP 1988-38871	19880222
PRIORITY APPLN. INFO.:			JP 1988-38871	19880222
OTHER SOURCE(S):		MARPAT 112:139045		
GI				



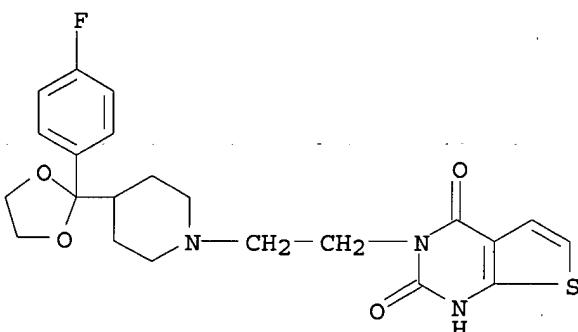
AB Title compds. I (one of X, Y, Z = S and other = C; E, G = O, S; R1 = substituted piperidino, substituted piperazino; R2, R3 = H, alkyl, aryl, halo; R4 = H, alkyl, acyl; A = alkylene) are prep'd.. Treatment of 2,3-dihydro-5(5H)-oxazolo[3,2-a]thieno[3,2-d]pyrimidinone with 4-fluorobenzoylpiperidine in DMF gave thienopyrimidine II. The latter at 0.033 mg kg i.v. showed 84% inhibition of histamine-induced respiratory tract constriction in quinea pigs.

IT 125809-25-8P

123809-25-67
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of as allergy inhibitor)

RN 125809-25-8 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 3-[2-[4-[2-(4-fluorophenyl)-1,3-dioxolan-2-yl]-1-piperidinyl]ethyl]-(9CI) (CA INDEX NAME)



L8 ANSWER 77 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1989:497276 CAPLUS

DOCUMENT NUMBER: 111:97276

DOCUMENT NUMBER: 111-572-8
TITLE: Preparation of thienopyrimidine derivatives as aldose reductase inhibitors

INVENTOR(S): Ogawa, Kazuo; Yamawaki, Ichiro; Matsushita, Yoichi;

Nomura, Naruo; Okazaki, Isseki

PATENT ASSIGNEE(S): Kameda, Narie, Ozaki, Isser
Taiko Pharmaceutical Co., Ltd., Japan

1. PATENT ASSIGNEE(S): Fisons Pharmaceutical Co.
2. SOURCE: PCT Int. Appl. 81 pp

for the App
CODEN: PTXXD2

DOCUMENT TYPE: Patent

DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC NIM COUNT: 1

PATENT INFO. NO. 00000000000000000000000000000000

PATENT NO

KIND DATE

APPLICATION NO. DATE

DATE

HC 2000120 11 10000000

MS. 1000, 77-207, 1000-1000

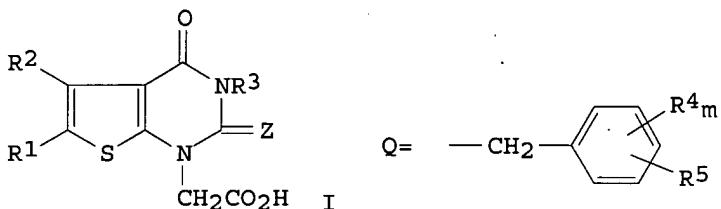
WO 8902432 A1 19890323

WO 1988-JP935 19880916

W: AU, JP, KR, US

RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE
AU 8823819 A1 19890417 AU 1988-23819 19880916
AU 599515 B2 19900719
EP 335979 A1 19891011 EP 1988-908327 19880916
R: CH, DE, FR, GB, IT, LI, NL
JP 2631888 B2 19970716 JP 1988-507472 19880916
US 4898867 A 19900206 US 1989-377862 19890504
PRIORITY APPLN. INFO.: JP 1987-231425 19870916
WO 1988-JP935 19880916

OTHER SOURCE(S): MARPAT 111:97276
GI



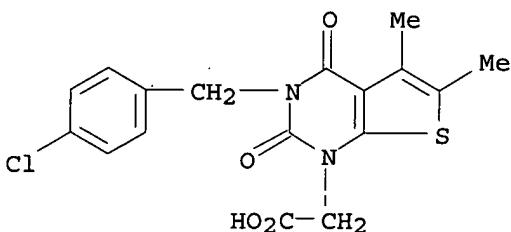
AB The title compds. (I; R1, R2 = H, halo, lower alkyl, cycloalkyl, Ph; or R1R2 = alkylene to form a ring; R3 = lower alkyl, Q; R4 = lower alkyl, lower alkoxy, halo; m = 0, 1, 2; R5 = H, halo; Z = O, S) were prep'd. as aldose reductase inhibitors. A soln. of Et 2-ethoxycarbonylamino-4,5-dimethyl-3-thiophenecarboxylate with 4-ClC₆H₄CH₂NH₂ in EtOH and DMF was heated in a sealed tube at 230.degree. to give 3-(4-chlorobenzyl)-5,6-dimethylthieno[2,3-d]pyrimidine-2,4(1H,3H)-dione which was alkylated by BrCH₂CO₂Et in DMF contg. NaH to give, after sapon., I (R1 = R2 = Me, R3 = CH₂C₆H₄Cl-p, Z = O). I in vitro inhibited aldose reductase with IC₅₀'s of 1.7-4.2 times. 10-8M. Capsules (200 mg) were formulated from I (R1 = Cl, R2 = H, R3 = CH₂C₆H₃FBr-2,4, Z = O) 50, lactose 50, corn starch 47, cellulose 50, talc 2, and Mg stearate 1 mg.

IT 122185-41-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of, as aldose reductase inhibitor)

RN 122185-41-5 CAPLUS

CN Thieno[2,3-d]pyrimidine-1(2H)-acetic acid, 3-[(4-chlorophenyl)methyl]-3,4-dihydro-5,6-dimethyl-2,4-dioxo- (9CI) (CA INDEX NAME)



L8 ANSWER 78 OF 90 CAPLUS COPYRIGHT 2003 ACS

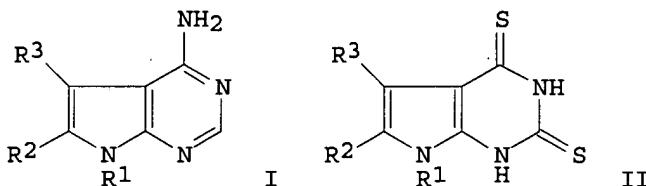
ACCESSION NUMBER: 1989:439290 CAPLUS

DOCUMENT NUMBER: 111:39290

TITLE: Synthesis and biological activity of pyrrolo[2,3-d]pyrimidines

AUTHOR(S): Dave, Chaitanya G.; Shah, P. R.; Upadhyaya, S. P.;

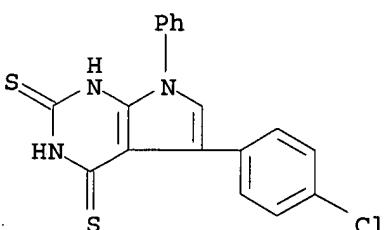
CORPORATE SOURCE: Gandhi, T. P.; Patel, R. B.
Dep. Chem., St. Xavier's Coll., Ahmedabad, 380 009,
India
SOURCE: Indian Journal of Chemistry, Section B: Organic
Chemistry Including Medicinal Chemistry (1988),
27B(8), 778-80
CODEN: IJSBDB; ISSN: 0376-4699
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 111:39290
GI



AB 2-Amno-3-pyrrolecarbonitriles were treated with HCONH_2 to give aminopyrrolopyrimidines I [R1 = Ph, tolyl, anisyl, halophenyl; R2 = H, or $\text{R}_2\text{R}_3 = (\text{CH}_2)_4$; R3 = Ph, anisyl, ClC_6H_4 , Me, tolyl]. Most I showed bactericidal, analgesic, antiinflammatory, antihistaminic, anticholinergic, anticonvulsant, and antihypertensive activity. Also prepd., from CS2, were pyrrolopyrimidines II.

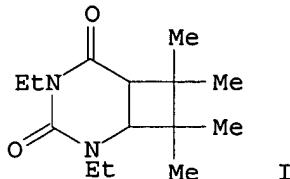
IT 121405-46-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and bactericidal activity of)

RN 121405-46-7 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-2, phenyl- (9CI) (CA INDEX NAME)



L8 ANSWER 79 OF 90 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1989:33410 CAPLUS
DOCUMENT NUMBER: 110:33410
TITLE: Inhibition of proliferation and induction of differentiation of human myeloid leukemia cells by novel nucleoside analogs
AUTHOR(S): Honma, Y.; Ikuta, T.; Kasukabe, T.; Hozumi, M.; Itoh, T.; Ogura, H.
CORPORATE SOURCE: Dep. Chemotherapy, Saitama Cancer Cent. Res. Inst., Saitama, 362, Japan
SOURCE: Anticancer Research (1988), 8(4), 695-9
CODEN: ANTRD4; ISSN: 0250-7005
DOCUMENT TYPE: Journal

LANGUAGE: English
GI



AB Purines such as hypoxanthine and 6-thioguanine have the capacity to induce the differentiation of human myeloid leukemia HL-60 cells in culture. The effects of nucleoside analogs on cell proliferation and differentiation of HL-60 cells were examd. On incubation with these compds., proliferation of HL-60 cells was inhibited and the cells were induced to differentiate into morphol. and functionally mature granulocytes. Among the compds. tested, 2,4-diethyl-7,7,8,8-tetramethyl-cis-2,4-diazabicyclo[4.2.0]octane-3,5-dione (I) was the most effective in inducing differentiation of HL-60 cells. This compd. was approx. 100 times more potent on a molar basis than hypoxanthine. The compds. reacted synergistically or additively with a typical antileukemic drug (daunomycin) or another potent differentiation inducer (retinoic acid).

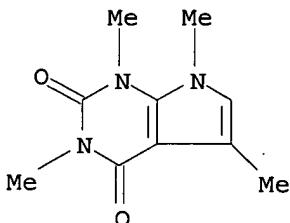
IT 94154-87-7

RL: BIOL (Biological study)

(myeloid leukemia cell differentiation and proliferation response to, of human)

RN 94154-87-7 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 1,3,5,7-tetramethyl- (9CI) (CA INDEX NAME)



L8 ANSWER 80 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1988:492940 CAPLUS
 DOCUMENT NUMBER: 109:92940
 TITLE: Thiophene systems. 9. Thienopyrimidinedione derivatives as potential antihypertensive agents
 Russell, Ronald K.; Press, Jeffery B.; Rampulla, Richard A.; McNally, James J.; Falotico, Robert; Keiser, Joan A.; Bright, David A.; Tobia, Alfonso
 Res. Lab., Ortho Pharm. Corp., Raritan, NJ, 08869, USA
 SOURCE: Journal of Medicinal Chemistry (1988), 31(9), 1786-93
 CODEN: JMCMAR; ISSN: 0022-2623
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 109:92940
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

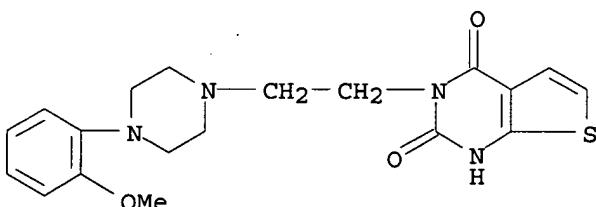
AB A series of thieno[3,4-d]-, thieno[3,2-d]-, and thieno[2,3-d]pyrimidine-2,4-diones (e.g., I, II and III, resp.) with (phenylpiperazinyl)alkyl substitution at N(3) were prep'd. and evaluated for antihypertensive effects in spontaneously hypertensive rats (SHR). Thus, chloroethylcarbamoylaminothiophenecarboxylate IV was treated with 4-(2-methoxyphenyl)piperazine hydrochloride, NaHCO₃ and NaI in THF to give 67% the phenylpiperazinoethylurea V, which on treatment with KOH-MeOH gave 72% II. The 49 compds. prep'd. were compared to the vasodilator stds. prazosin (VI) and the isosteric quinazoline-2,4-dione SGB 1534 (VII). An examn. of compds. substituted at the 2-, 3-, or 4-position of the Ph ring showed that those substituted at the 2-position were more potent than 4-substituted compds. while the isomeric 3-substituted compds. were least potent. Neither alkylation nor acylation at the N(1) position improved the antihypertensive effects. The three thienopyrimidine-2,4-diones I-III that contain a [(2-methoxyphenyl)piperazinyl]ethyl moiety at N(3) and hydrogen at N(1) were found to be potent oral antihypertensive agents in SHR with doses (mg/kg, po) for reducing systolic blood pressure (SBP) by 50 mmHg (ED₅₀SBP) of 0.08, 0.19, and 1.0, resp. I-III and VI and VII were further evaluated for .alpha. blocking potency by measuring the i.v. doses necessary to antagonize the phenylephrine pressor response by 50% (ED₅₀) in SHR. The ED₅₀ values (.mu.g/kg) are 1.7, 2.1, 15.4, 10.4 and 3.3 resp. These results clearly show that all three thiophene systems have potent activity as antihypertensive agents and that I and II are more potent than VI or VII as .alpha.1-antagonists in vivo.

IT 110164-21-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and antihypertensive activity of)

RN 110164-21-1 CAPLUS

CN Thieno[2,3-d]pyrimidine-2,4(1H,3H)-dione, 3-[2-[4-(2-methoxyphenyl)-1-piperazinyl]ethyl] - (9CI) (CA INDEX NAME)



L8 ANSWER 81 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1988:437821 CAPLUS
 DOCUMENT NUMBER: 109:37821
 TITLE: Preparation of 4-[(bicyclic heterocyclyl)methyl]piperidines and analogs as antihistaminics
 INVENTOR(S): Janssens, Frans E.; Kennis, Ludo E. J.; Hens, Jozef F.; Torremans, Joseph L. G.; Diels, Gaston S. M.
 PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.
 SOURCE: U.S., 59 pp. Cont.-in-part of U.S. Ser. No. 571,135, abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

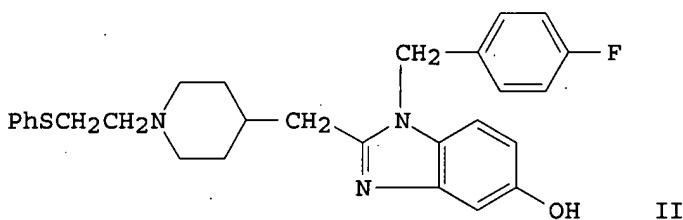
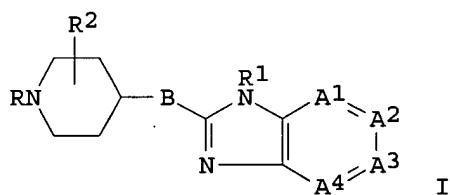
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4695575	A	19870922	US 1985-747754	19850624
ES 539281	A1	19870616	ES 1984-539281	19841231
AU 8537364	A1	19850912	AU 1985-37364	19850107
AU 573673	B2	19880616		
CA 1259609	A1	19890919	CA 1985-471589	19850107
FI 8500079	A	19850710	FI 1985-79	19850108
FI 83867	B	19910531		
FI 83867	C	19910910		
NO 8500085	A	19850710	NO 1985-85	19850108
NO 160849	B	19890227		
NO 160849	C	19890607		
DK 8500089	A	19850710	DK 1985-89	19850108
JP 60185777	A2	19850921	JP 1985-479	19850108
JP 07068240	B4	19950726		
HU 36471	A2	19850930	HU 1985-61	19850108
HU 200338	B	19900528		
ZA 8500187	A	19860827	ZA 1985-187	19850108
RO 90622	B3	19861210	RO 1985-117252	19850108
SU 1396964	A3	19880515	SU 1985-3836858	19850108
IL 74018	A1	19880831	IL 1985-74018	19850108
PL 145710	B1	19881031	PL 1985-251488	19850109
US 4839374	A	19890613	US 1987-94987	19870910
PRIORITY APPLN. INFO.:			US 1984-569369	19840109
			US 1984-671135	19841113
			US 1985-747754	19850624

OTHER SOURCE(S):

CASREACT 109:37821

GI



AB The title compds. [I; 3 of A1-A4 = (un)substituted CH, the 4th = N, (un)substituted CH; B = CH₂, O, SO, SO₂; R = substituted C1-6 alkyl, alkoxy, alkylthio, amino, pyrrolidinyl, piperidinyl, hexahydroazepinyl, etc.; R1 = H, alkyl, cycloalkyl, (un)substituted aryl, heteroaryl, (hetero)aralkyl; R2 = H, alkyl] and their stereoisomers and acid salts were prep'd. as antihistaminics and serotonin antagonists. 1-[(4-Fluorophenyl)methyl]-2-(4-piperidinylmethyl)-1H-benzimidazol-5-ol and PhSCH₂CH₂Br were refluxed 2 h in Me₂CHCH₂COMe contg. Na₂CO₃ to give 27.8% benzimidazole deriv. (II). I inhibited compd. 48/80-induced lethality in rats, caused by histamine release, with ED₅₀ of 0.005-0.16

mg/kg s.c. or orally. It also inhibited gastric lesions caused by simultaneous release of serotonin.

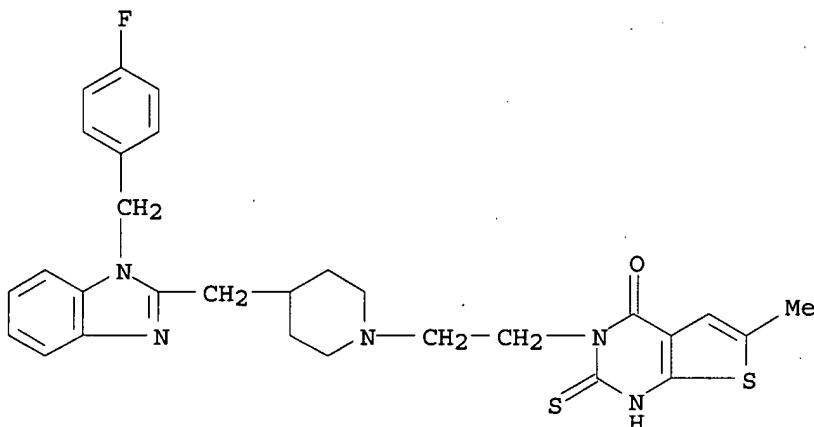
IT 100016-05-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as antihistaminic)

RN 100016-05-5 CAPLUS

CN Thieno[2,3-d]pyrimidin-4(1H)-one, 3-[2-[4-[[1-[(4-fluorophenyl)methyl]-1H-benzimidazol-2-yl]methyl]-1-piperidinyl]ethyl]-2,3-dihydro-6-methyl-2-thioxo-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

L8 ANSWER 82 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1986:68856 CAPLUS

DOCUMENT NUMBER: 104:68856

TITLE: Bicyclic heterocyclyl containing N-(bicyclic heterocyclyl)-4-piperidinamines

INVENTOR(S): Janssens, Frans Eduard; Torremans, Joseph Leo Ghislain; Hens, Jozef Francis; Van Offenwert, Theophilus Theresia J. M.

PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.

SOURCE: Eur. Pat. Appl., 106 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 144101	A2	19850612	EP 1984-201611	19841107
EP 144101	A3	19850724		
EP 144101	B1	19910206		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4695569	A	19870922	US 1984-660608	19841012
AT 60769	E	19910215	AT 1984-201611	19841107
SU 1500162	A3	19890807	SU 1984-3814401	19841123
CA 1257258	A1	19890711	CA 1984-468587	19841126
CZ 281114	B6	19960612	CZ 1984-9128	19841128
SK 278443	B6	19970507	SK 1984-9128	19841128

DK 8405678	A	19850531	DK 1984-5678	19841129
FI 8404708	A	19850531	FI 1984-4708	19841129
FI 80446	B	19900228		
FI 80446	C	19900611		
NO 8404755	A	19850531	NO 1984-4755	19841129
NO 164171	B	19900528		
NO 164171	C	19900905		
AU 8436028	A1	19850606	AU 1984-36028	19841129
AU 579121	B2	19881117		
JP 60149583	A2	19850807	JP 1984-250660	19841129
JP 06092389	B4	19941116		
ZA 8409331	A	19860730	ZA 1984-9331	19841129
IL 73686	A1	19880531	IL 1984-73686	19841129
PL 146377	B1	19890131	PL 1984-250633	19841129
HU 35677	O	19850729	HU 1984-4444	19841130
HU 199837	B	19900328		
RO 90414	B3	19861210	RO 1984-116474	19841130
US 4888426	A	19891219	US 1987-56200	19870601
SU 1694064	A3	19911123	SU 1987-4203318	19870917
CA 1330081	A1	19940607	CA 1988-564954	19880422
FI 8804037	A	19880901	FI 1988-4037	19880901
FI 84070	B	19910628		
FI 84070	C	19911010		
US 5025014	A	19910618	US 1989-447312	19891207
US 5126339	A	19920630	US 1991-671338	19910319
PRIORITY APPLN. INFO.:			US 1983-556742	19831130
			US 1984-660608	19841012
			EP 1984-201611	19841107
			CA 1984-468587	19841126
			FI 1984-4708	19841129
			US 1987-56200	19870601
			US 1989-447312	19891207

OTHER SOURCE(S): CASREACT 104:68856

GI For diagram(s), see printed CA Issue.

AB The title compds. [I; R = H, cycloalkyl, pyridinyl, pyrazinyl, alkyl-(un)substituted furanyl, thiazolyl, imidazolyl, halo-(un)substituted thiaryl, (un)substituted alkyl, Ph; R1 = H, alkyl, cycloalkyl, alkanoyl, alkoxy carbonyl, (un)substituted phenylalkyl; R2 = H, alkyl; R3 = alkyl, pyrrolidinyl, piperidinyl, homopiperonyl, each substituted by a group contg. a bicyclic heterocyclic moiety; X = atoms required to complete an (un)substituted C6H6 or pyridine ring] (>150 in all) were prep'd. Thus, 1-[(4-fluorophenyl)methyl]-N-(4-piperidinyl)-1H-benzimidazol-2-amine was alkylated by heating at 70.degree. with 6-(2-bromoethyl)-3,7-dimethyl-5H-thiazolo[3,2-a]pyrimidin-5-one-HBr in DMF contg. Na2CO3 to give 62.8% II. II had antihistaminic activity in rats, counteracting the lethality of compd. 48/80 with an ED50 of 0.31 mg/kg s.c. or orally, and inhibiting gastric lesions caused by the same agent with an ED50 of 0.63 mg/kg orally.

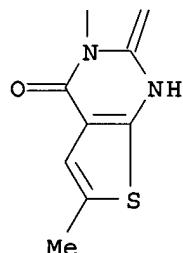
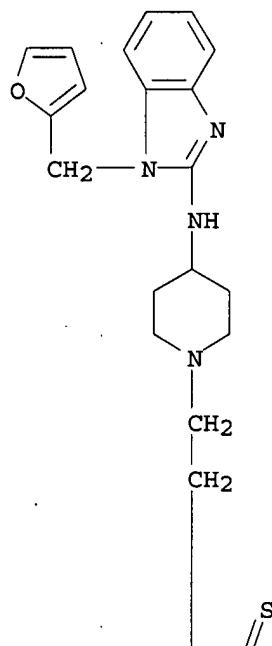
IT 99157-97-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and antihistaminic activity of)

RN 99157-97-8 CAPLUS

CN Thieno[2,3-d]pyrimidin-4(1H)-one, 3-[2-[4-[[1-(2-furanyl methyl)-1H-benzimidazol-2-yl]amino]-1-piperidinyl]ethyl]-2,3-dihydro-6-methyl-2-thioxo- (9CI) (CA INDEX NAME)



L8 ANSWER 83 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1984:170571 CAPLUS
 DOCUMENT NUMBER: 100:170571
 TITLE: Substrate and inhibitor specificity of tRNA-guanine
 ribosyltransferase
 AUTHOR(S): Farkas, Walter R.; Jacobson, K. Bruce; Katze, Jon R.
 CORPORATE SOURCE: Cent. Health Sci., Univ. Tennessee, Knoxville, TN,
 37920, USA
 SOURCE: Biochimica et Biophysica Acta (1984), 781(1-2), 64-75
 CODEN: BBACAO; ISSN: 0006-3002
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A no. of compds., including derivs. of 7-deazaguanine, pteridines,
 purines, pyrimidines, and antimalarials were tested as inhibitors or
 substrates of tRNA-guanine ribosyltransferase (EC 2.4.2.29) (I).
 Virtually all purines and pteridines that were inhibitors or substrates of
 rabbit reticulocyte I had an amino N atom at the 2-position. In addn.,
 the 9-position and the O atom at the 6-position may be important for
 recognition by the enzyme. Satn. of the double bond in the

cyclopentenediol moiety of queuine (II) reduced the substrate activity and II analogs that lacked the cyclopentenediol moiety, such as 7-deazaguanine and 7-aminomethyl-7-deazaguanine, were relatively poor substrates for I. Adenosine was not an inhibitor of I and neoplanocin A (an adenosine analog in which a cyclopentenediol replaced the ribose moiety) was a poor inhibitor. The incorporation of 7-aminomethyl-7-deazaguanine into the tRNA of L-M cells resulted in a novel chromatog. form of tRNAAsp, indicating that L-M cells cannot modify this queuosone precursor (in *Escherichia coli*) to queuosine. The specific incorporation of 7-deazaguanine and 8-azaguanine into tRNA by L-M cells also resulted in novel chromatog. forms of tRNAAsp. With intact L-M cells, I-catalyzed insertion into tRNA of II, dihydro-II, 7-aminomethyl-7-deazaguanine, or 7-deazaguanine was irreversible, whereas guanine or 8-azaguanine incorporation was reversible, suggesting that it is the substitution of C-7 for N-7 which prevents the reversible incorporation of II into tRNA.

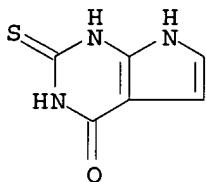
IT 67831-84-9

RL: BIOL (Biological study)

(tRNA-guanine ribosyltransferase inhibition by, structure in relation to)

RN 67831-84-9 CAPLUS

CN 4H-Pyrrolo[2,3-d]pyrimidin-4-one, 1,2,3,7-tetrahydro-2-thioxo- (9CI) (CA INDEX NAME)



L8 ANSWER 84 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1983:554371 CAPLUS
 DOCUMENT NUMBER: 99:154371
 TITLE: Methylated 7-deazahypoxanthines as regiochemical probes of xanthine oxidase
 Rosemeyer, Helmut; Seela, Frank
 Dep. Chem., Univ. Paderborn, Paderborn, D-4790, Fed. Rep. Ger.
 SOURCE: European Journal of Biochemistry (1983), 134(3), 513-15
 CODEN: EJBCAI; ISSN: 0014-2956
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB 7-Deazahypoxanthine was oxidized by bovine milk xanthine oxidase exclusively at C-2. The resulting 7-deazaxanthine was a strong inhibitor of the enzymic reaction. This offered a possibility for detg. the structural requirements of ligand binding sep. for the 1st step. All of the monomethyl isomers of 7-deazahypoxanthine were tested as probes by measuring their Km, Ki, and Vmax values. Whereas the N-3-Me and C-7-Me isomers were still processed, the N-9-Me and 6-O-Me isomers were bound as inhibitors to the active site. The N-1-Me compd. was neither an inhibitor nor a substrate. This demonstrated that HN(1) and O:C(6) are essential for the binding. Replacement of O:C(6) by S:C(6) changed the substrate into a strong inhibitor (Ki = 9 .mu.M), implying that the electron transfer to the enzyme was hindered. Methylation of the thioxo group (S:) reduced the inhibition significantly. In contrast to 7-deazahypoxanthine, 2-thioxo-7-deazaxanthine was an activator at concns. <87 .mu.M and a partial competitive inhibitor above this concn., which implied the presence of a 2nd binding site.

10/ 075,073

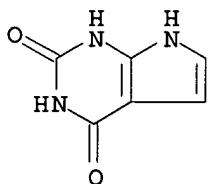
IT 39929-79-8

RL: BIOL (Biological study)

(xanthine oxidase specificity for, structure in relation to)

RN 39929-79-8 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione (9CI) (CA INDEX NAME)



L8 ANSWER 85 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1982:155147 CAPLUS

DOCUMENT NUMBER: 96:155147

DOCUMENT NUMBER: 9615511
TITLE: The antitumor and mammalian xanthine oxidase inhibitory activity of 5-methyl-6-substituted pyrrolo(2,3-d)pyrimidine-2,4-diones

AUTHOR(S): Bettleach, Charles J.; Sowell, J. Walter, Sr.

CORPORATE SOURCE: Bettach, Charles S., Sewell, C. Walter, Sr.
Coll. Pharm., Univ. South Carolina, Columbia, SC,
29208, USA

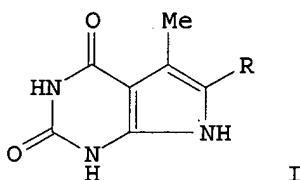
SOURCE: Journal of Pharmaceutical Sciences (1982), 71(2), 269-70

CODEN: JPMSAE; ISSN: 0022-3549

DOCUMENT TYPE: Journal

LANGUAGE : English

GI



AB Six pyrrolo[2,3-d]pyrimidine-2,4-diones I (R = Me, Et, Ph, etc.) were tested in vitro as inhibitors of xanthine oxidase [9002-17-9] and compared with allopurinol (II). Only 2 of the compds. tested showed inhibition. I (R = Ph) [72211-16-6] had the most activity but it was low compared to II. When the antitumor activity of I (R = Me) [72185-72-9] was tested in vivo against 2 transplantable mouse lymphoid tumor systems the compd. appeared to be toxic.

IT 72185-72-9

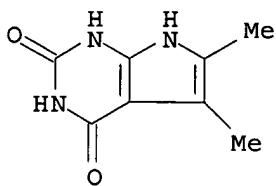
RL: BIOL (Biological study); BSU (Biological study, subunit)

unclassified); BIOL (Biological study)

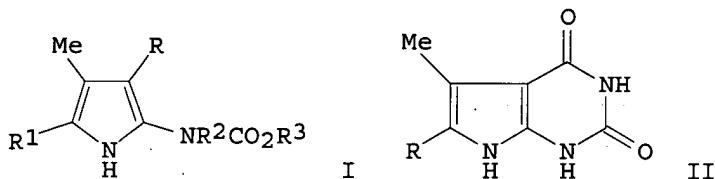
(antitumor and xanthine oxidase inhibiting activity of)

RN 72185-72-9 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 5,6-dimethyl- (9CI) (CA INDEX NAME)



L8 ANSWER 86 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1980:418957 CAPLUS
 DOCUMENT NUMBER: 93:18957
 TITLE: Anticonvulsant properties of selected
 pyrrolo[2,3-d]pyrimidine-2,4-diones and intermediates
 Powers, Debra L.; Sowell, J. Walter; Freeman, J. J.;
 Kosh, J. W.
 AUTHOR(S):
 CORPORATE SOURCE: Coll. Pharm., Univ. South Carolina, Columbia, SC,
 29208, USA
 SOURCE: Journal of Pharmaceutical Sciences (1980), 69(4),
 473-5
 DOCUMENT TYPE: CODEN: JPMSAE; ISSN: 0022-3549
 LANGUAGE: English
 GI



AB Fifteen title compds. I ($R = CN$ or $CONH_2$, $R_1 = Me$, Et , CH_2Ph , etc.; $R_2 = H$ or Me ; $R_3 = Et$, CH_2CH_2Cl , CH_2CCl_3) and II ($R = Et$, or CH_2Ph) were tested for anticonvulsant activity in mice. Eleven of the 15 compds. possessed anticonvulsant activity against pentylenetetrazol-induced convulsions. I; $R = Et$, $R_1 = H$, $R_2 = Me$ [72185-60-5] gave more anticonvulsant protection against pentylenetetrazol than did trimethadione (67 and 50%, resp.). A suspension of this compd. was as effective as a soln. in producing anticonvulsant activity. Apparently, the nitrile analogs were more potent compared to the carbamyl analog due to higher lipid solv.

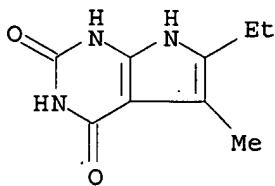
IT 72185-73-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

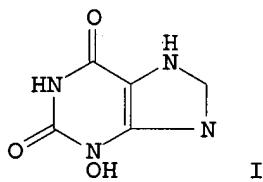
(anticonvulsant activity of)

RN 72185-73-0 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 6-ethyl-5-methyl- (9CI) (CA INDEX NAME)



L8 ANSWER 87 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1979:552478 CAPLUS
 DOCUMENT NUMBER: 91:152478
 TITLE: Chemical reactivities and oncogenicities of a series
 of N-hydroxyheterocycles
 AUTHOR(S): Lee, Tzoong-Chyh; Teller, Morris N.; Budinger, John
 M.; Kloetzer, Wilhelm; Brown, George Bosworth
 CORPORATE SOURCE: Memorial Sloan-Kettering Cancer Cent., New York, NY,
 10021, USA
 SOURCE: Chemico-Biological Interactions (1979), 25(2-3),
 369-72
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



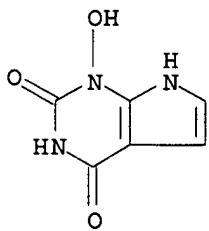
AB 3-Hydroxyxanthine (I) [13479-29-3] and its ring analogs were examd. to
 det. the structural features of the ring system required for SN1' type
 reactivity (conversion of I to a reactive ester, followed by
 elimination-substitution with various nucleophiles, under physiol.
 conditions, to give 8-substituted xanthines), and to assess the pertinence
 of that reactivity. 3-Hydroxy-2-oxopurine [54643-52-6] and
 1-hydroxy-2,4-dioxopyrrolopyrimidine [52133-54-7] underwent SN1'
 reactions readily under mild conditions. Oncogenicity assays showed that
 the latter is not oncogenic and the former is a weak one. The weak
 oncogenic activity may be due to its susceptibility to xanthine oxidase.
 The failure of pyrrolopyrimidine analog to induce any tumor may
 attributable to its extreme reactivity.

IT 52133-54-7
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological
 study)

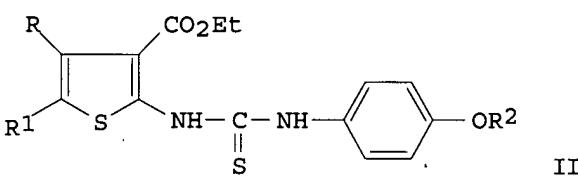
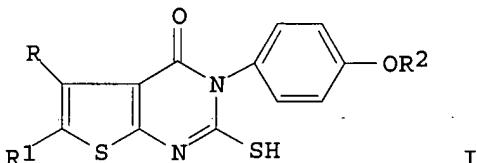
(carcinogenicity of, chem. reactivity in relation to)

RN 52133-54-7 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 1-hydroxy- (9CI) (CA INDEX
 NAME)



L8 ANSWER 88 OF 90 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1978:74367 CAPLUS
 DOCUMENT NUMBER: 88:74367
 TITLE: Synthesis of 2-mercaptopthieno[2,3-d]pyrimidin-4 (3H)-ones
 AUTHOR(S): Devani, M. B.; Shishoo, C. J.; Pathak, U. S.; Sharma, B. G.; Gokhale, S. V.; Padhye, A. C.
 CORPORATE SOURCE: Dep. Pharm. Chem., Lallubhai Motilal Coll. Pharm., Ahmedabad, India
 SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1977), 15B(6), 575-7
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



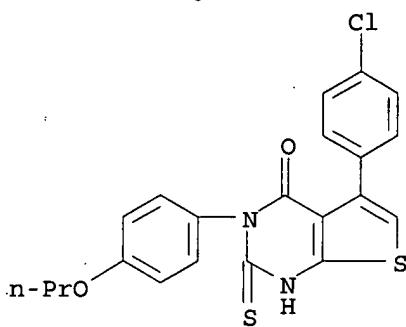
AB 2-Mercaptopthieno[2,3-d]pyrimidin-4(3H)-ones (I) (R = Ph, 4-ClC6H4, 4-MeC6H4; R1 = H, Me, RR1 = (CH2)2; R2 = alkyl) have been synthesized by cyclizing the corresponding thioureas II in acidic medium. The thioureas prep'd. are thiophene isosteres of known antitubercular drugs. All the compds. synthesized have been screened for antimicrobial activity.

IT 65233-98-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (prep'n. and bactericidal activity of)

RN 65233-98-9 CAPLUS

CN Thieno[2,3-d]pyrimidin-4(1H)-one, 5-(4-chlorophenyl)-2,3-dihydro-3-(4-propoxyphenyl)-2-thioxo- (9CI) (CA INDEX NAME)



L8 ANSWER 89 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1975:38667 CAPLUS

DOCUMENT NUMBER: 82:38667

TITLE: Pyrimidine derivatives and related compounds. XXII.

Synthesis and pharmacological properties of
7-deazaxanthine derivatives

AUTHOR(S): Senda, Shigeo; Hirota, Kosaku

CORPORATE SOURCE: Gifu Coll. Pharm., Gifu, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1974), 22(7),
1459-67

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

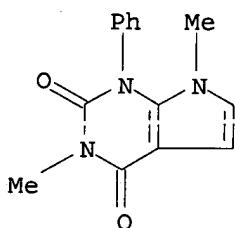
GI For diagram(s), see printed CA Issue.

AB For investigation of the structure-activity relations of xanthine derivs., 2,4-dioxo-1,2,3,4-tetrahydropyrrolo[2,3-d]pyrimidines (I) (7-deazaxanthine derivs.) were prep'd. from the corresponding 6-aminouracils and chloroacetaldehyde [107-20-0], and then were catalytically reduced to give 2,4-dioxo-1,2,3,4,5,6-hexahydropyrrolo[2,3-d]pyrimidines (II). A new method for synthesis of I was found by heating 6-hydrazinouracil derivs. with aldehydes or ketones. Diuretic, cardiac, and central nervous system stimulating activities of I and II in lab. animals were similar to those of caffeine [58-08-2].

IT 39929-60-7P

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(prepn. and pharmacol of)

RN 39929-60-7 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 3,7-dimethyl-1-phenyl- (9CI)
(CA INDEX NAME)

L8 ANSWER 90 OF 90 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1974:10295 CAPLUS

DOCUMENT NUMBER: 80:10295

10/ 075,073

TITLE: Platelet aggregation inhibitors. V. Pyrimidine derivatives, indole derivatives, benzothiophenes, and benzoquinolizine derivative

AUTHOR(S): Kikugawa, Kiyomi; Ichino, Motonobu

CORPORATE SOURCE: Tokyo Res. Lab., Kohjin Co., Ltd., Tokyo, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1973), 21(5), 1151-5

DOCUMENT TYPE: Journal

LANGUAGE: English

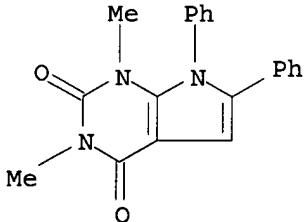
AB Of 6 classes of compds. tested as inhibitors of rabbit platelet aggregation induced by ADP [58-64-0] and collagen, only indole derivs., benzo[b]thiophenes, and benzoquinolizines were effective inhibitors. Among the indole derivs., N-benzyl-3-[2,2-bis(methylthio)-1-cyanoethenyl]indole-1-thiocarboxamide [31486-75-6] and 1-acetyl-3-hydroxy-1-(2-cyano-2-methoxycarbonyl-1-methylthioethenyl)indole [42789-16-2] were as effective as adenosine [58-61-7] against collagen-induced platelet aggregation, and 1-(4-morpholinylthiocarbonyl)-3-[2,2-bis(methylthio)-1-cyanoethenyl]indole [31486-76-7] and 5-methoxy-2-phenyl-1-(2-pyrrolidinoethyl)indole (I) [42789-18-4] were active against both ADP- and collagen-induced platelet aggregation; the latter compd. was the most effective inhibitor of the indole derivs. tested. Benzo[b]thiophene derivs. had strong inhibitory activity, except for 2,3-dihydro-3-hydroxy-3-(2-hydroxyethylamino)-2-oxobenzo[b]thiophene [42789-19-5], against both ADP- and collagen-induced platelet aggregation. 3-Cyano-2-methylthio-4-oxo-6,7-dihydrobenzo[a]quinolizine [37040-93-0] was also effective as an inhibitor of ADP- and collagen-induced platelet aggregation.

IT 745-35-7

RL: BIOL (Biological study)
(blood platelet aggregation in response to)

RN 745-35-7 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidine-2,4(3H,7H)-dione, 1,3-dimethyl-6,7-diphenyl-
(7CI, 9CI) (CA INDEX NAME)



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(FILE 'HOME' ENTERED AT 10:39:23 ON 07 JUN 2003)

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L4 2845 S L2 FUL

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L5 55566 S L3
L6 306 S L4
L7 34683 S L3/BIOL
L8 90 S L4/BIOL

10/ 075,073

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